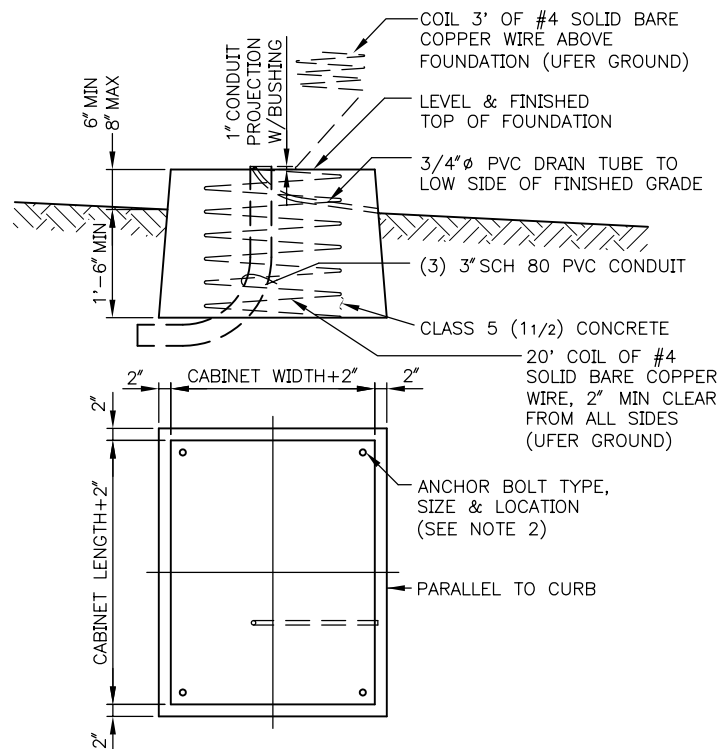


DIMENSION	TYPE II	TYPE III	AUXILIARY
A	28" TO 34"	36" TO 48"	24"
B	16" TO 20"	20" TO 28"	22"
C	38" TO 52"	50" TO 58"	-

### SIGNAL CONTROLLER CABINET—TYPES II & III

#### NOTES:

1. TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE FURNISHED BY THE CITY
2. EXACT CABINET DIMENSIONS & ANCHOR BOLT LOCATIONS SHALL BE PROVIDED BY THE TRAFFIC SIGNAL SHOPS
3. PLACE CABINET DOOR ON SIDEWALK SIDE OF FOUNDATION
4. SEAL CABINET TO FOUNDATION WITH GREY OR CLEAR SILICON TO PREVENT MOISTURE FROM ENTERING THE CABINET



### SIGNAL CONTROLLER FOUNDATION—TYPES II & III

SEE STD PLAN NO 500b FOR CONDUIT LAYOUT

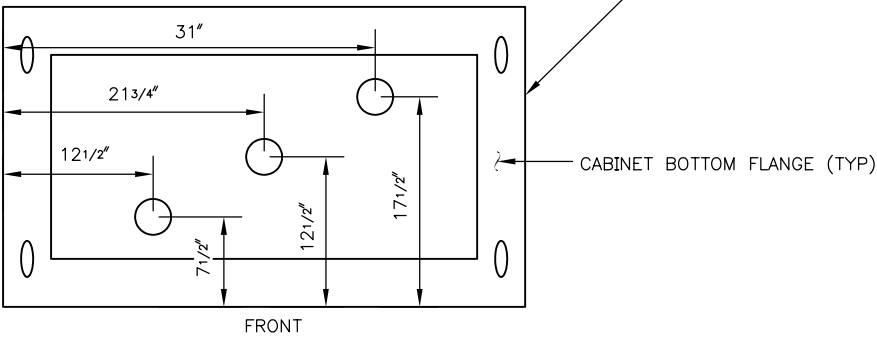
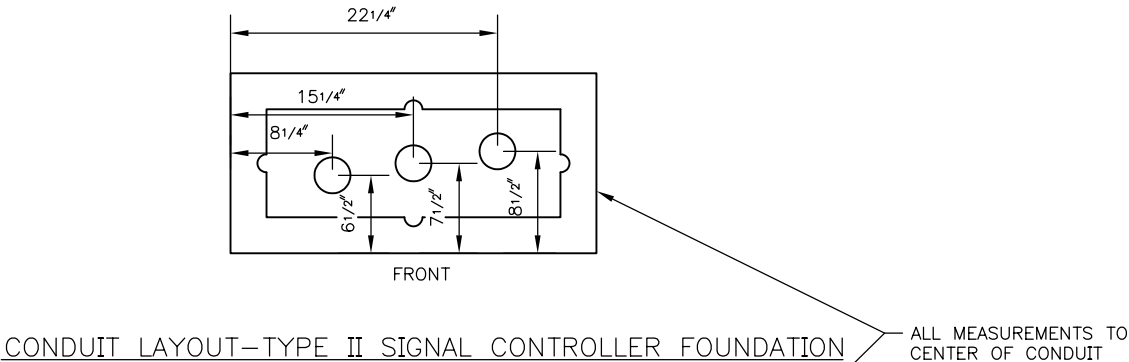
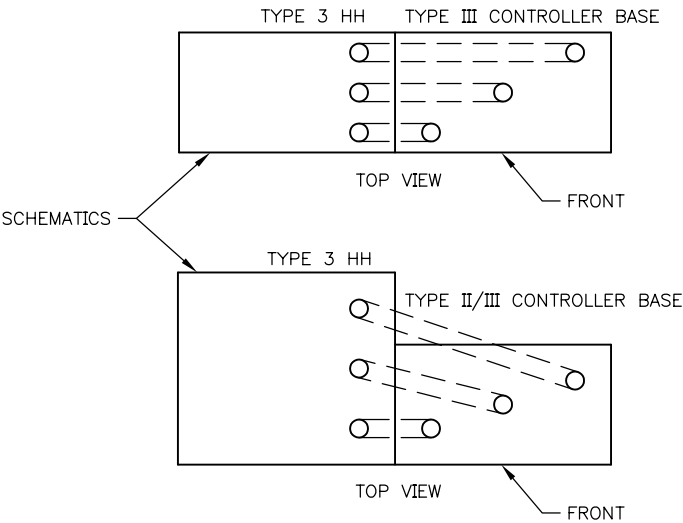
REF STD SPEC SEC 8-31 & 8-32



City of Seattle

NOT TO SCALE

SIGNAL CONTROLLER  
CABINET & FOUNDATION



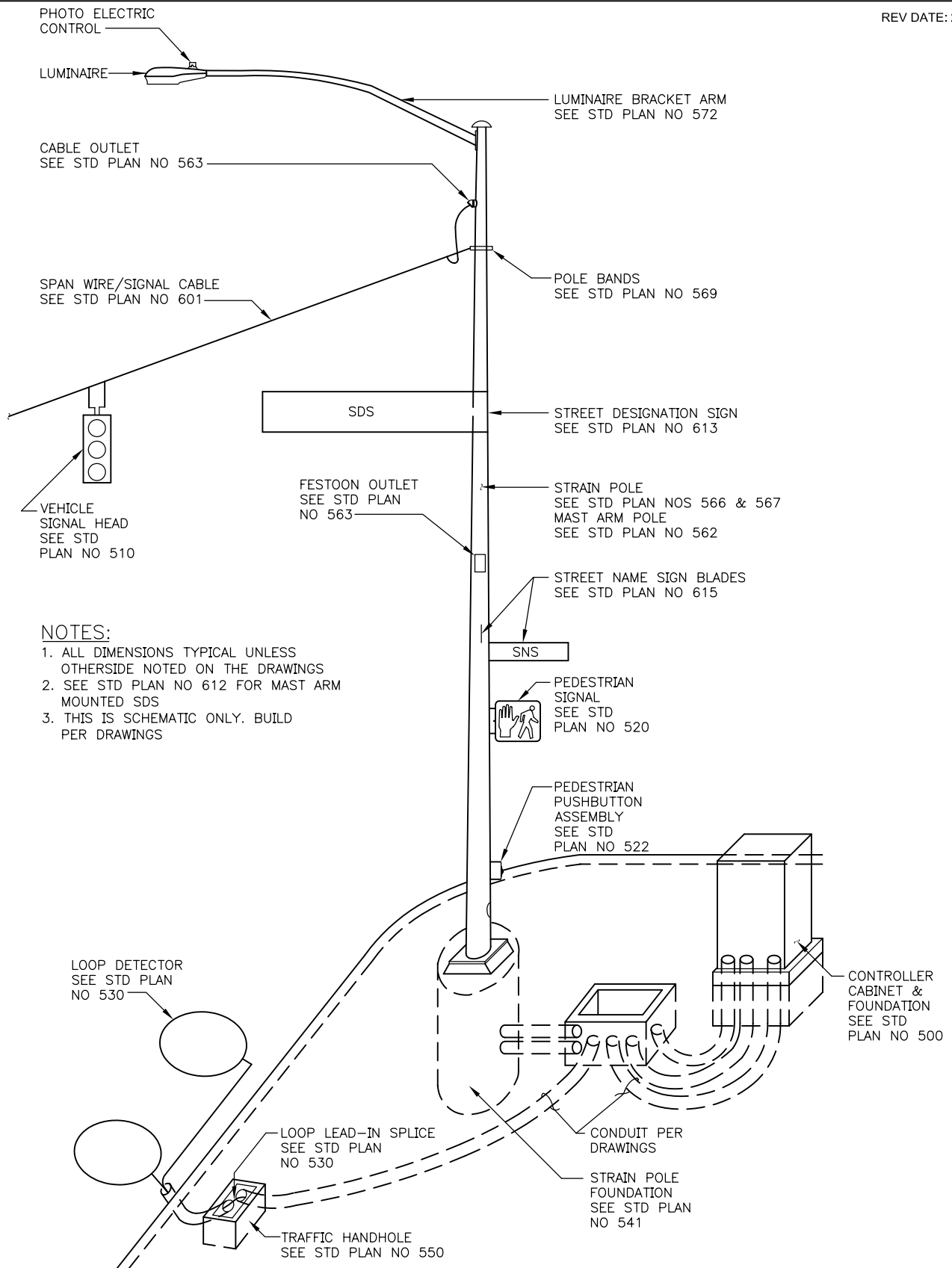
REF STD SPEC SEC 8-31 & 8-32



City of Seattle

NOT TO SCALE

SIGNAL CONTROLLER  
FOUNDATION CONDUIT LAYOUT



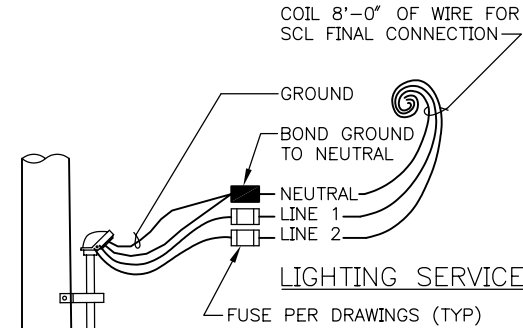
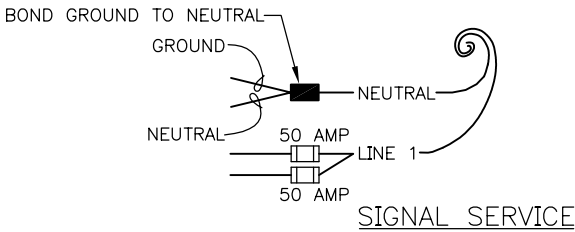
REF STD SPEC SEC 9-31, 9-32, 9-33 &amp; 9-34



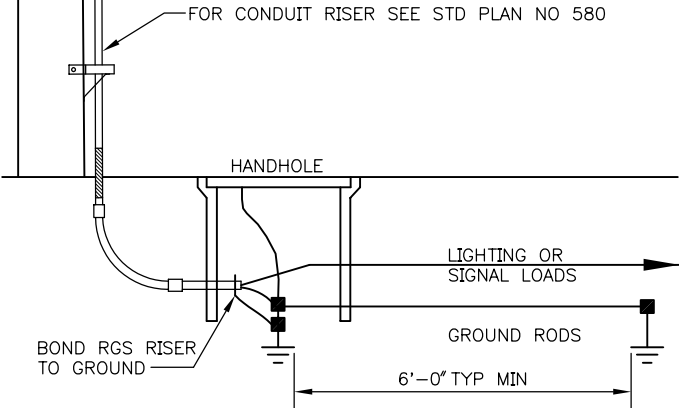
City of Seattle

NOT TO SCALE

**SIGNALIZED INTERSECTION  
SPAN WIRE TYPE  
CONFIGURATION**



- NOTES:
1. FOR METAL POLES WITH ONLY OVERHEAD ACCESS, CONDUCTORS SHALL ENTER POLE THROUGH CABLE OUTLETS
  2. CONDUCTORS SHALL BE CONTINUOUSLY COLOR CODED  
LINE 1 = BLACK  
LINE 2 = RED  
LINE 3 = BLUE  
NEUTRAL = WHITE  
GROUND = GREEN



OVERHEAD SERVICE CONNECTION

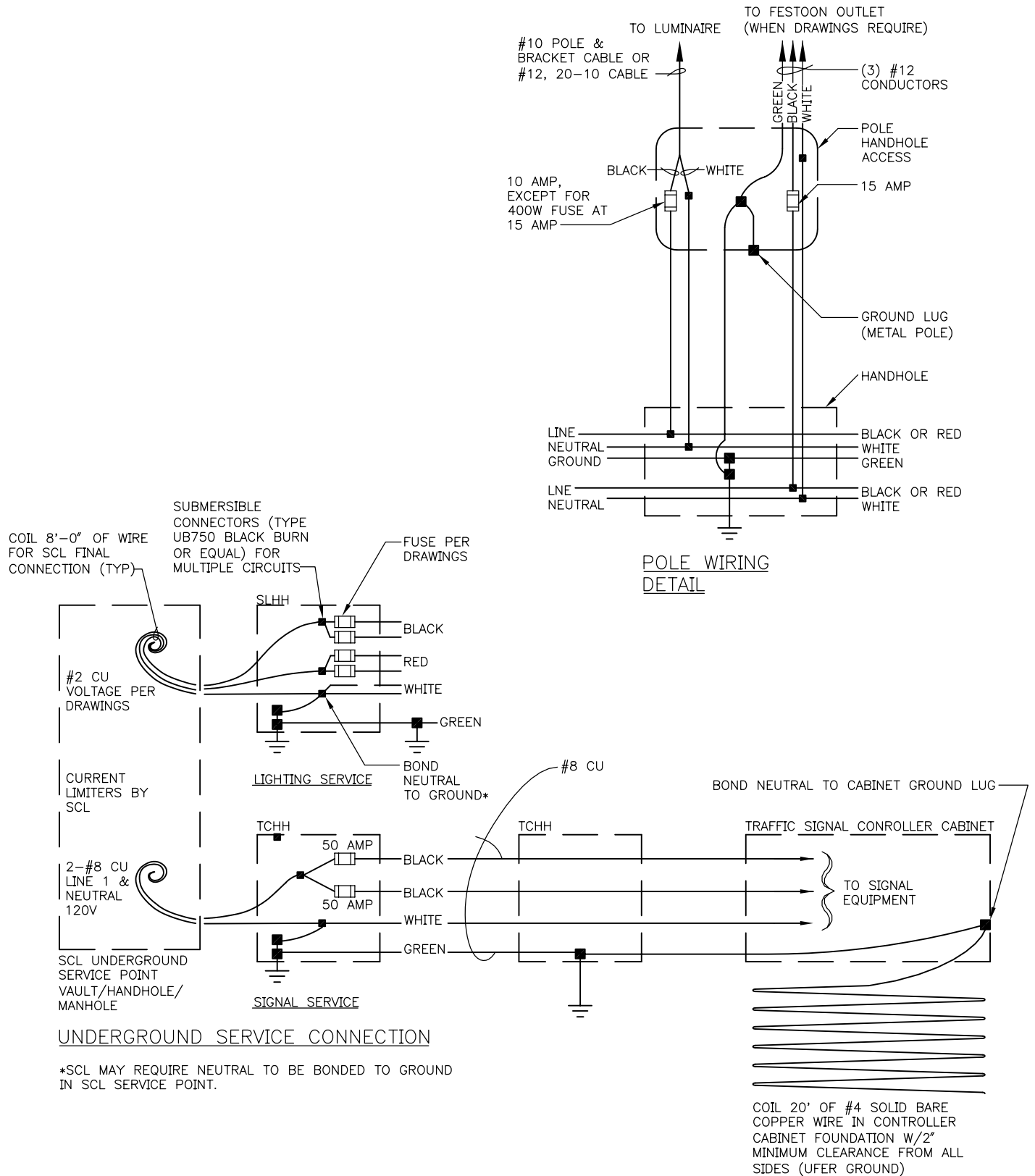
REF STD SPEC SEC 8-30 & 8-31



City of Seattle

NOT TO SCALE

SIGNAL & LIGHTING  
SERVICE CONNECTION &  
LIGHT POLE WIRING DETAIL



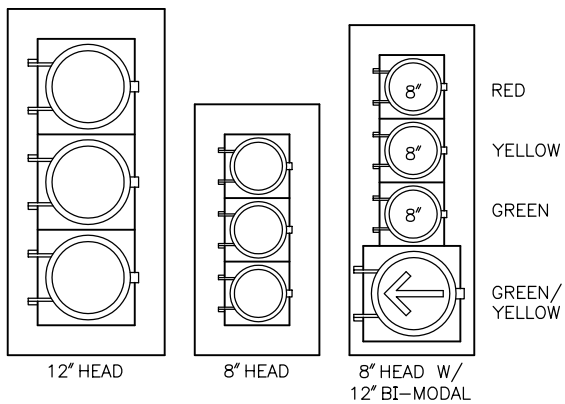
REF STD SPEC SEC 8-30 &amp; 8-31



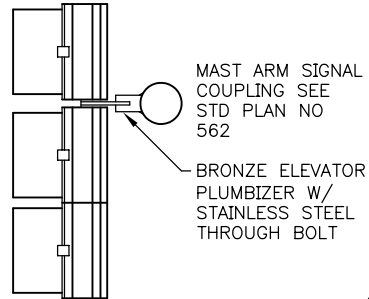
City of Seattle

NOT TO SCALE

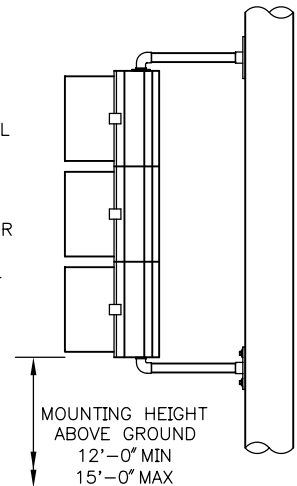
**SIGNAL & LIGHTING  
SERVICE CONNECTION &  
LIGHT POLE WIRING DETAIL**

TYPICAL SIGNAL FACES

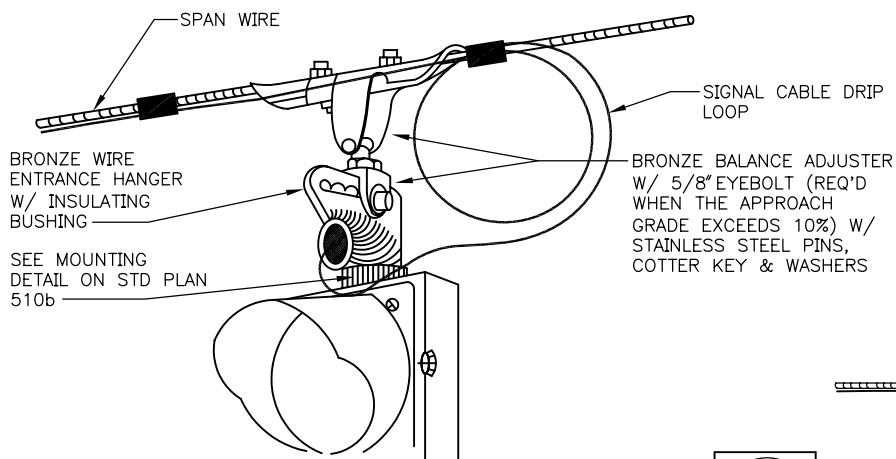
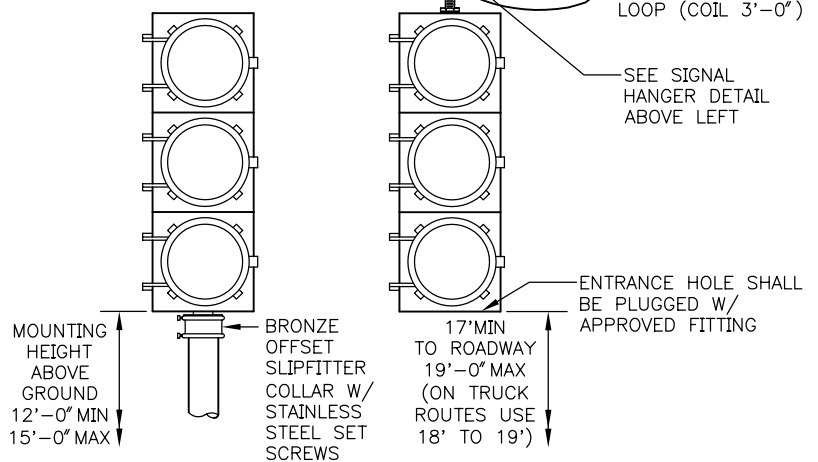
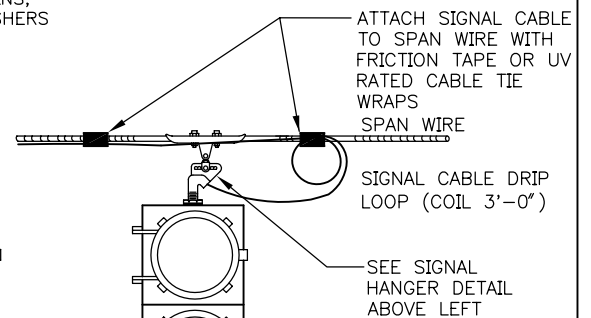
W/ TUNNEL VISORS &  
5" BACKPLATE (LOUVERED)

MAST ARM MOUNTINGNOTE:

BACKPLATES HAVE  
BEEN OMITTED  
FROM VARIOUS  
VIEWS FOR CLARITY

BRACKET MOUNTING

FOR BRACKET ASSEMBLY  
SEE STD PLAN NO 511

SIGNAL HANGER DETAILPEDESTAL TOP MOUNTING

FOR PEDESTAL SEE STD PLAN NO 524b

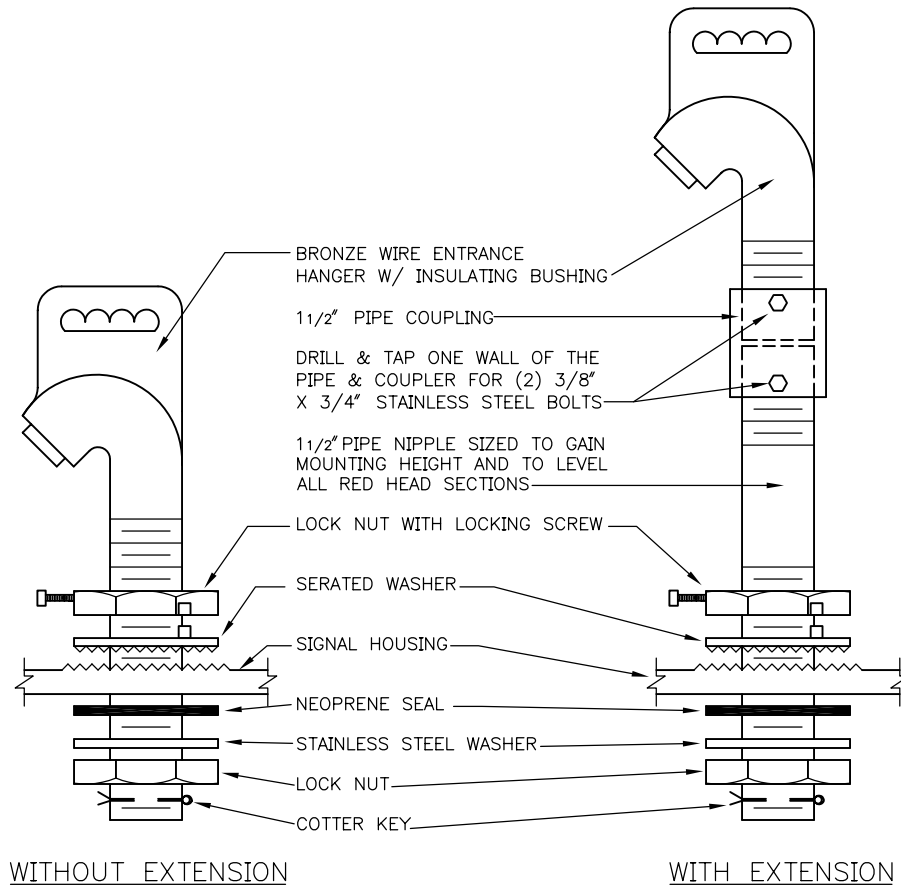
REF STD SPEC SEC 8-31



City of Seattle

NOT TO SCALE

VEHICULAR SIGNAL MOUNTING



SUSPENDED SIGNAL MOUNTING DETAIL

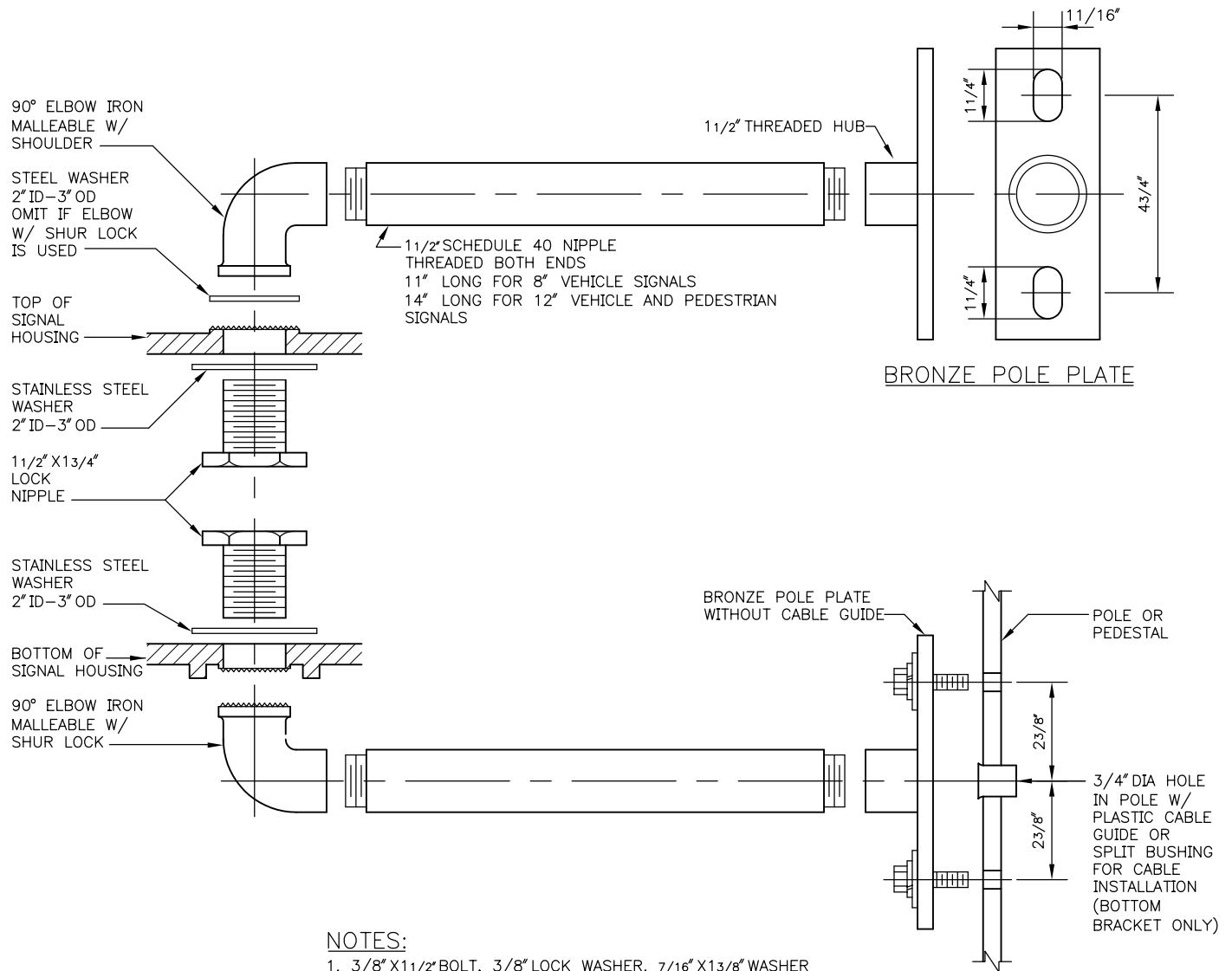
REF STD SPEC SEC 8-31



City of Seattle

NOT TO SCALE

VEHICULAR SIGNAL MOUNTING



REF STD SPEC SEC 8-31

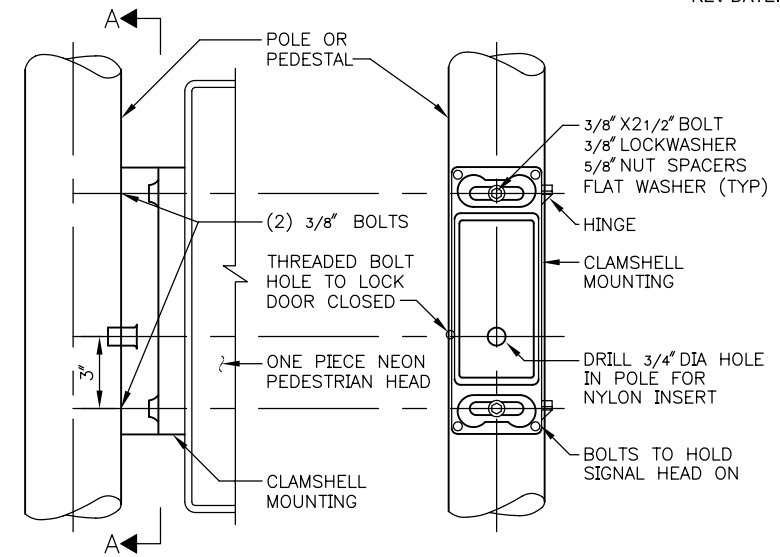


City of Seattle

NOT TO SCALE

SIGNAL HEAD BRACKET  
ASSEMBLY

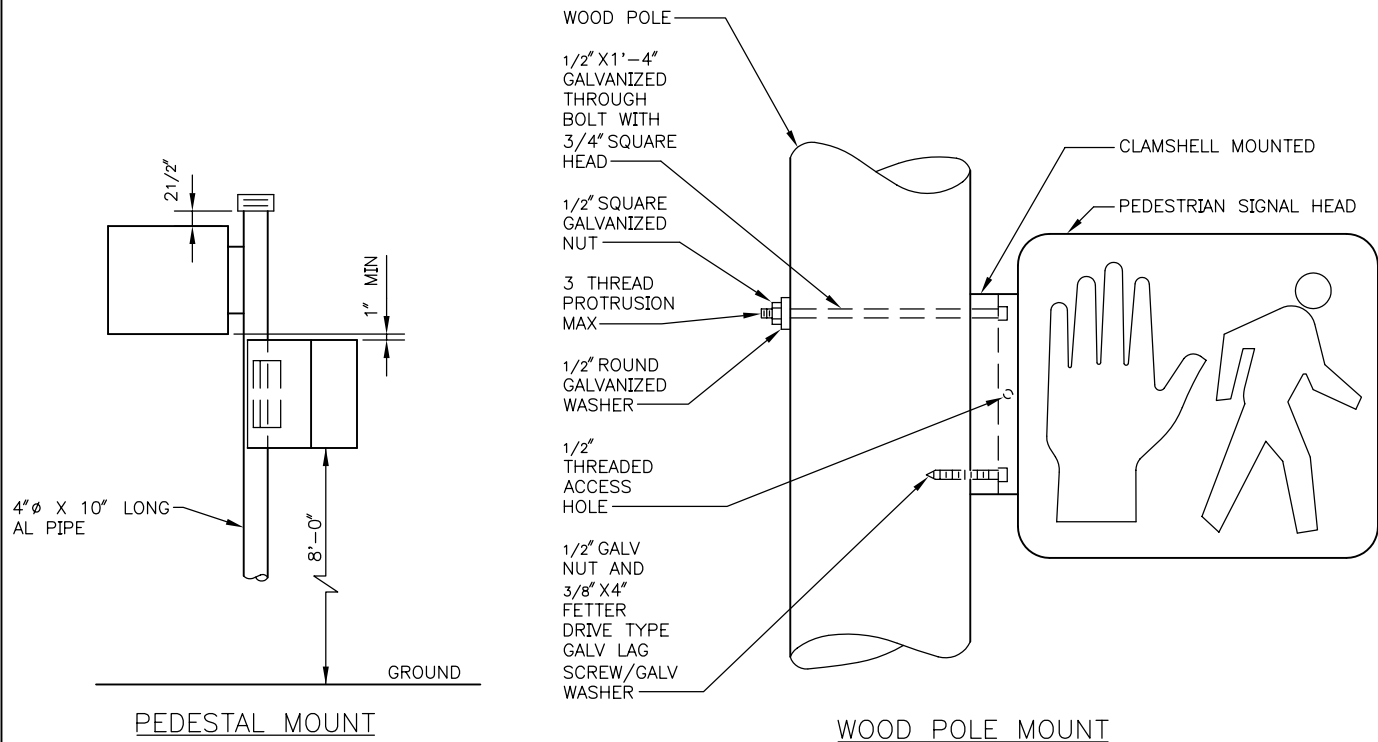




ELEVATION

SECTION A-A

METAL POLE MOUNT



PEDESTAL MOUNT

WOOD POLE MOUNT

**NOTES:**

1. BOLT AND WASHERS SHALL BE STAINLESS STEEL
2. MOUNTING SHALL BE AS FOLLOWS:
  - ON METAL POLES THINNER THAN 7 GAUGE, USE 3/8" STAINLESS STEEL RIVNUTS
  - ON METAL POLES 7 GAUGE OR THICKER, DRILL AND TAP FOR 3/8" BOLT (STAINLESS STEEL RIVNUTS OPTIONAL)
  - ON POLES FILLED WITH OR MADE FROM CONCRETE USE 3/8" X 2 1/2" STUD BOLT ANCHORS WITH HEX NUT
3. FOR STREET NAME SIGNS MOUNTED ON TOP OF PEDESTAL SEE STD PLAN NO 623

REF STD SPEC SEC 8-31



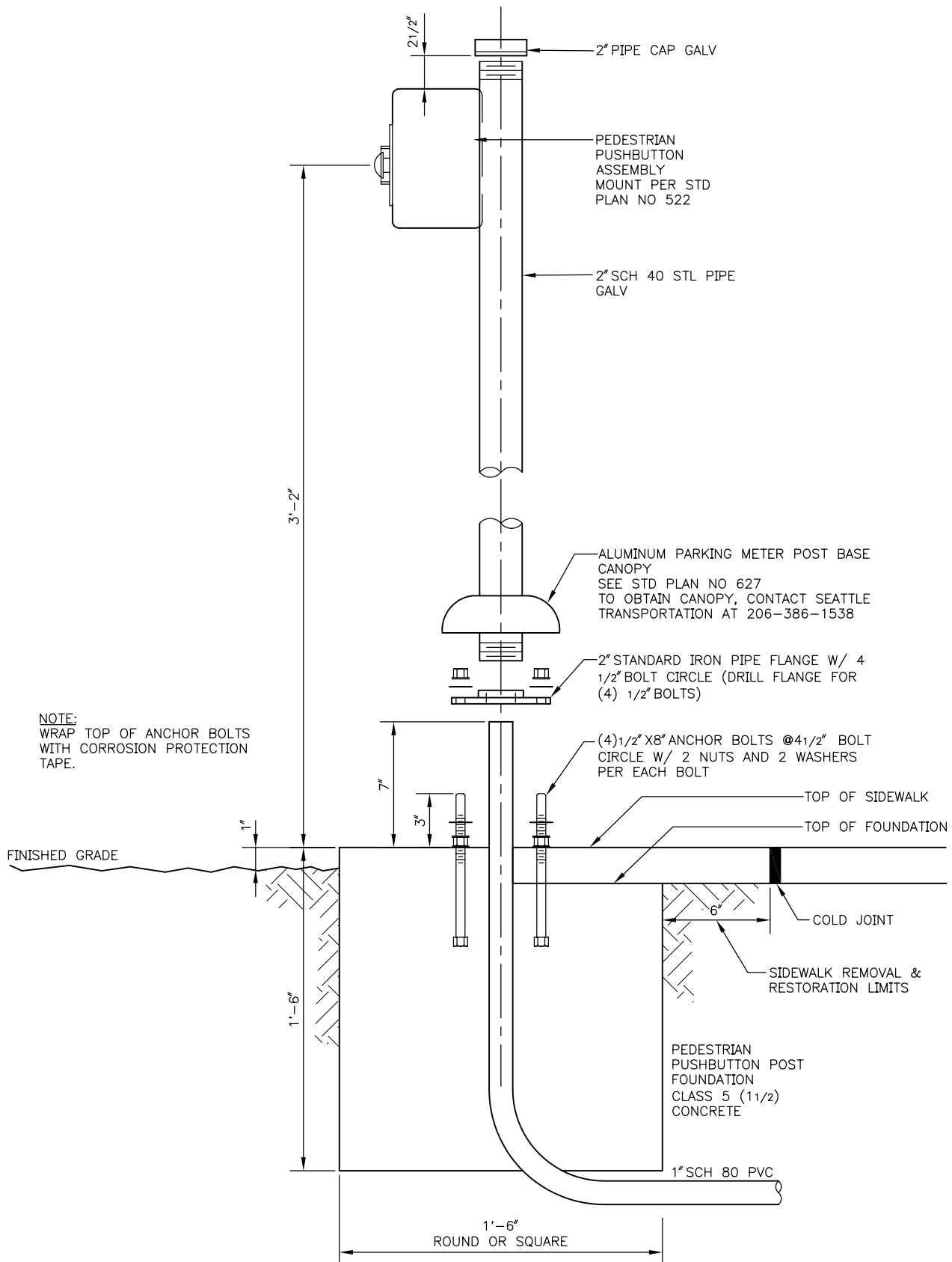
City of Seattle

NOT TO SCALE

PEDESTRIAN SIGNAL  
CLAMSHELL MOUNTING

# STANDARD PLAN NO 521

REV DATE: 2003



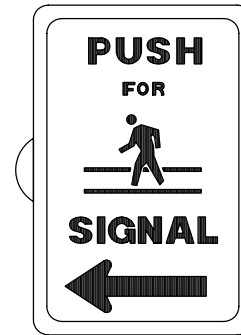
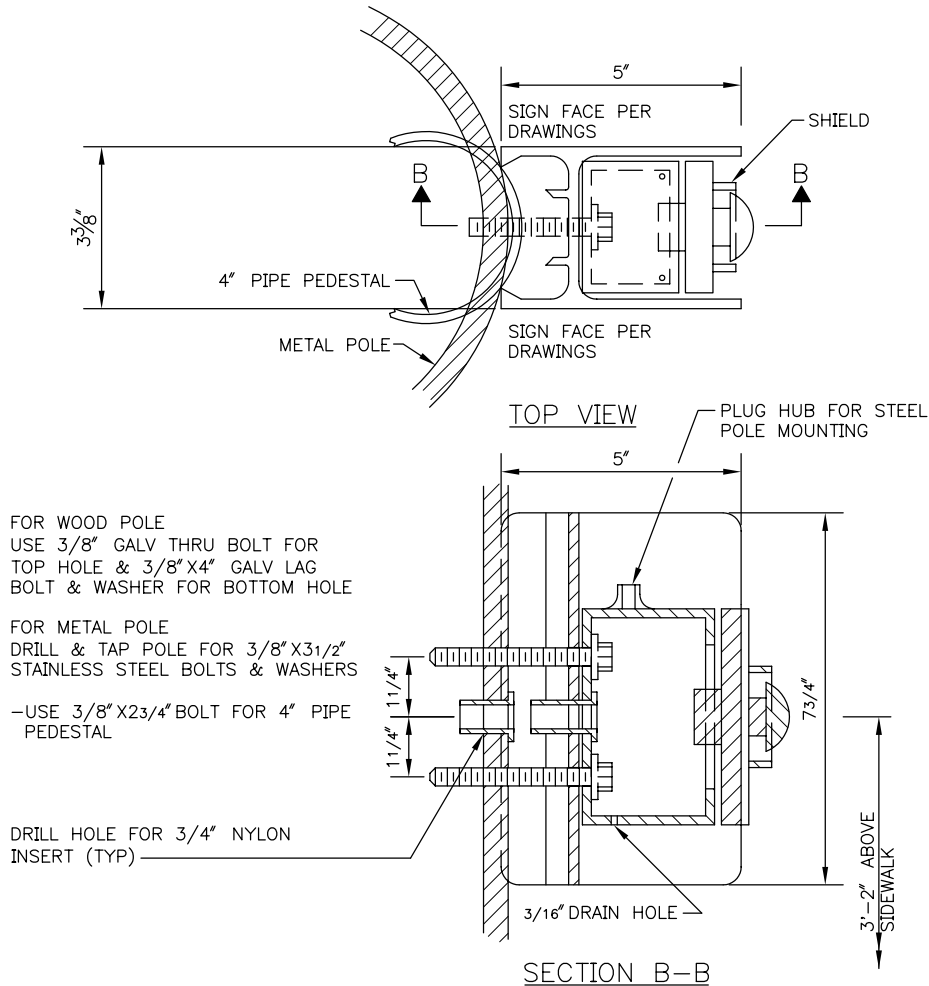
REF STD SPEC SEC 8-31 & 8-32



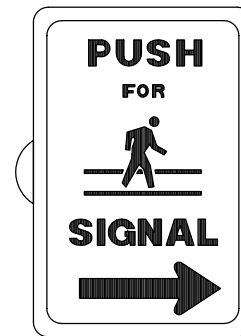
City of Seattle

NOT TO SCALE

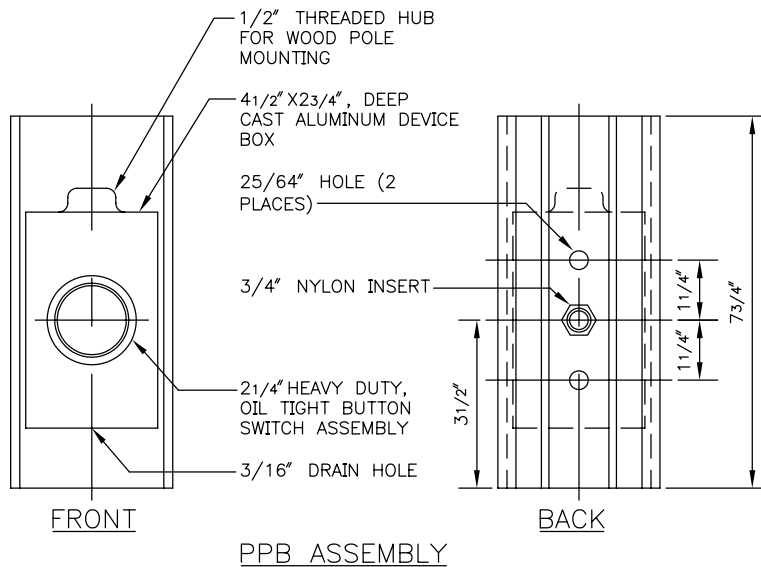
PEDESTRIAN PUSHBUTTON POST & FOUNDATION



R-37L  
MODIFIED  
(PART NO H3)



R-37R  
MODIFIED  
(PART NO H3R)



## NOTES:

1. MOLDED ONE-PIECE ALUMINUM CONSTRUCTION
2. SIGNS SHALL BE FABRICATED FROM BAKED-ON ENAMEL DIRECTLY ON BOTH SIDES OF THE EXTRUSION

REF STD SPEC SEC 8-31



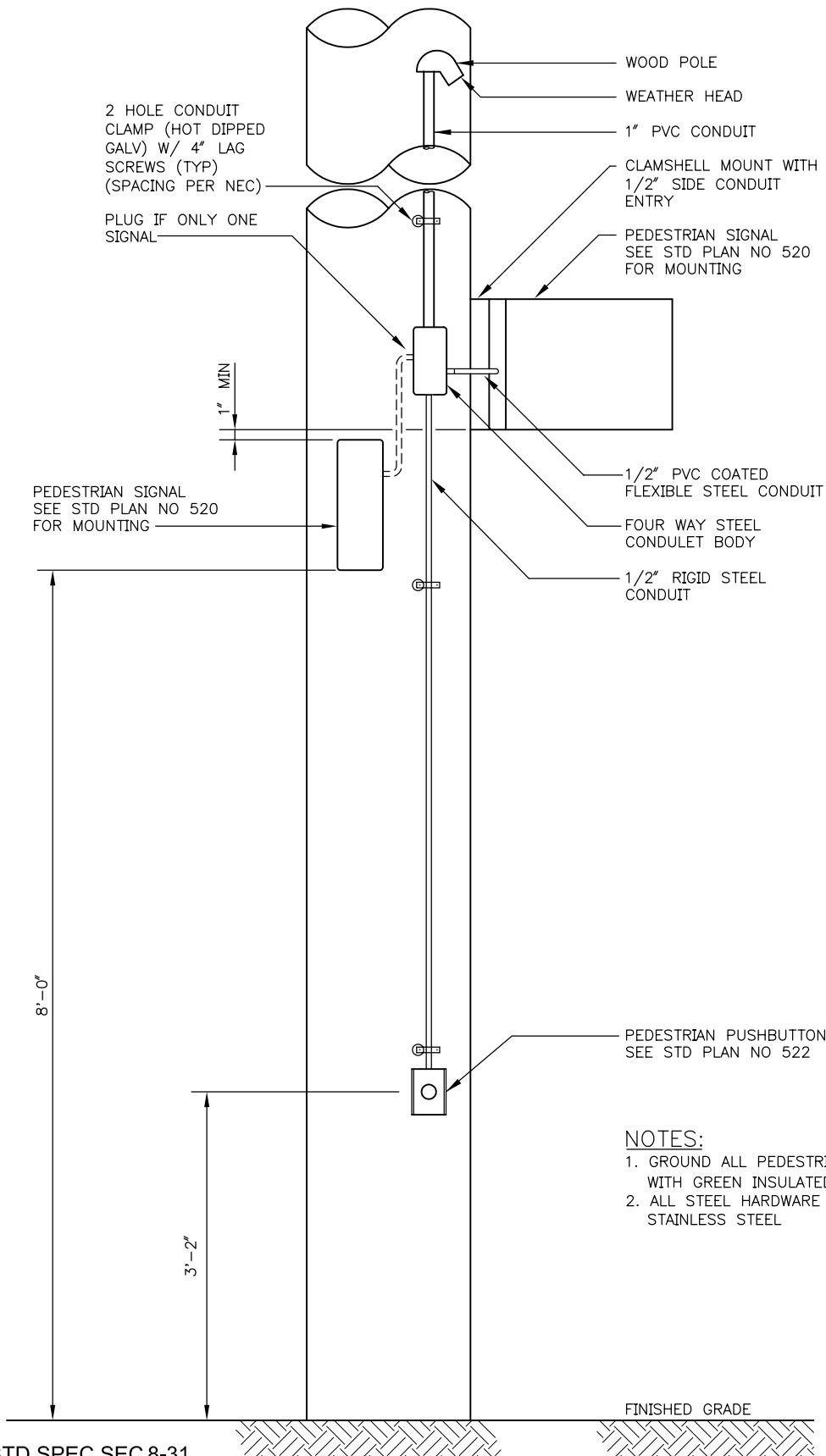
City of Seattle

NOT TO SCALE

PEDESTRIAN PUSHBUTTON &amp; MOUNTING

# STANDARD PLAN NO 523

REV DATE: 2005



## NOTES:

1. GROUND ALL PEDESTRIAN SIGNALS AND PUSHBUTTONS WITH GREEN INSULATED #8 COPPER WIRE
2. ALL STEEL HARDWARE SHALL BE HOT DIP GALV OR STAINLESS STEEL

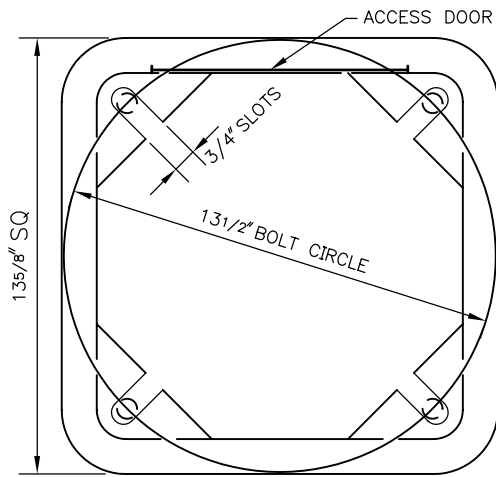
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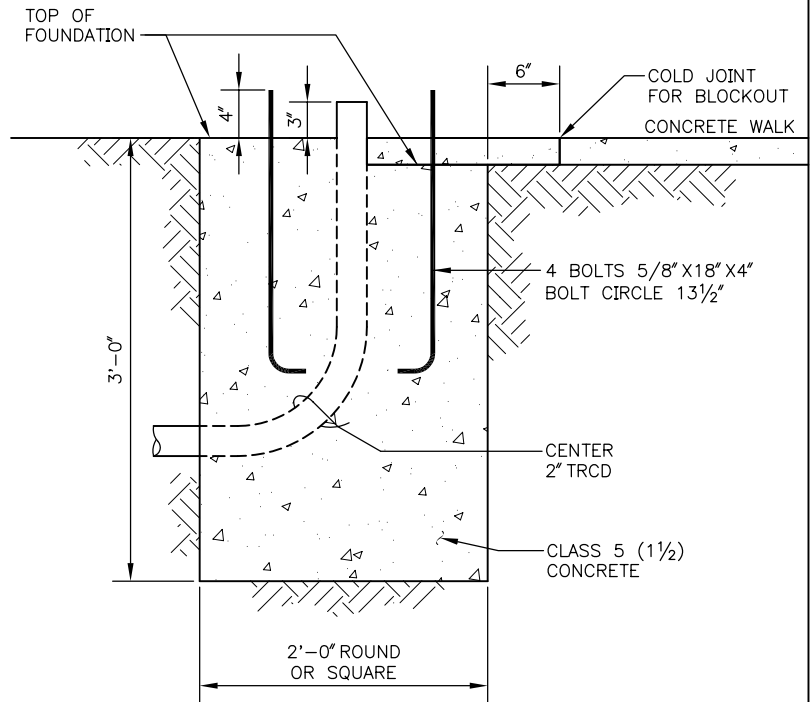
City of Seattle

NOT TO SCALE

PEDESTRIAN SIGNAL &  
PUSHBUTTON MOUNTED ON  
WOOD POLE

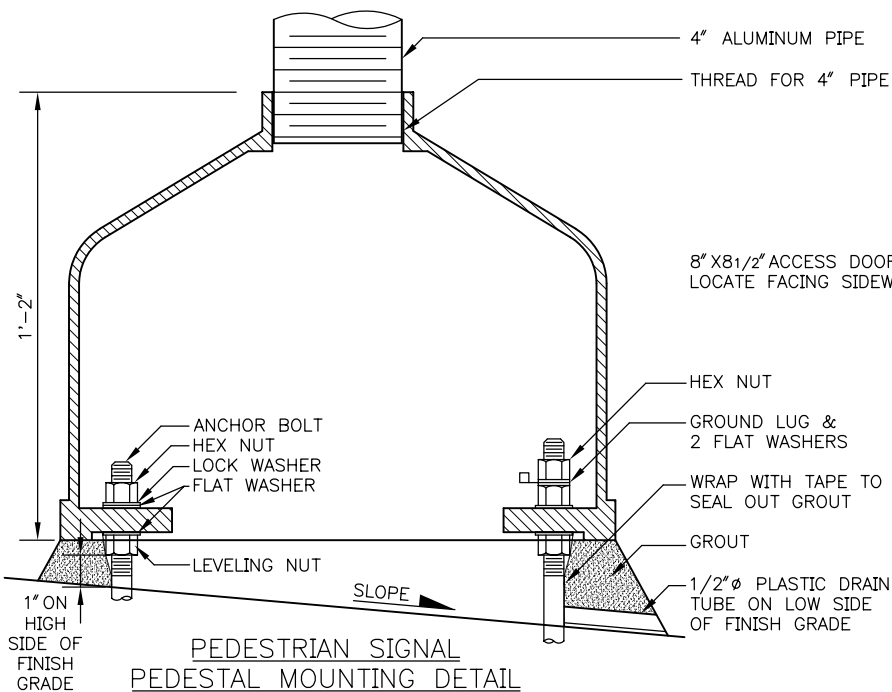


BOTTOM VIEW

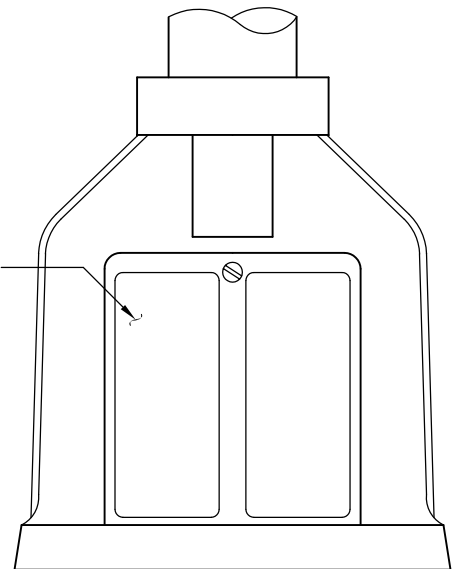


PEDESTAL FOUNDATION

NOTE: INSTALL UFER GROUND TO FOUNDATION (SEE STD PLAN NO 500a)



PEDESTRIAN SIGNAL  
PEDESTAL MOUNTING DETAIL



SQUARE ALUMINUM BASE PEDESTAL

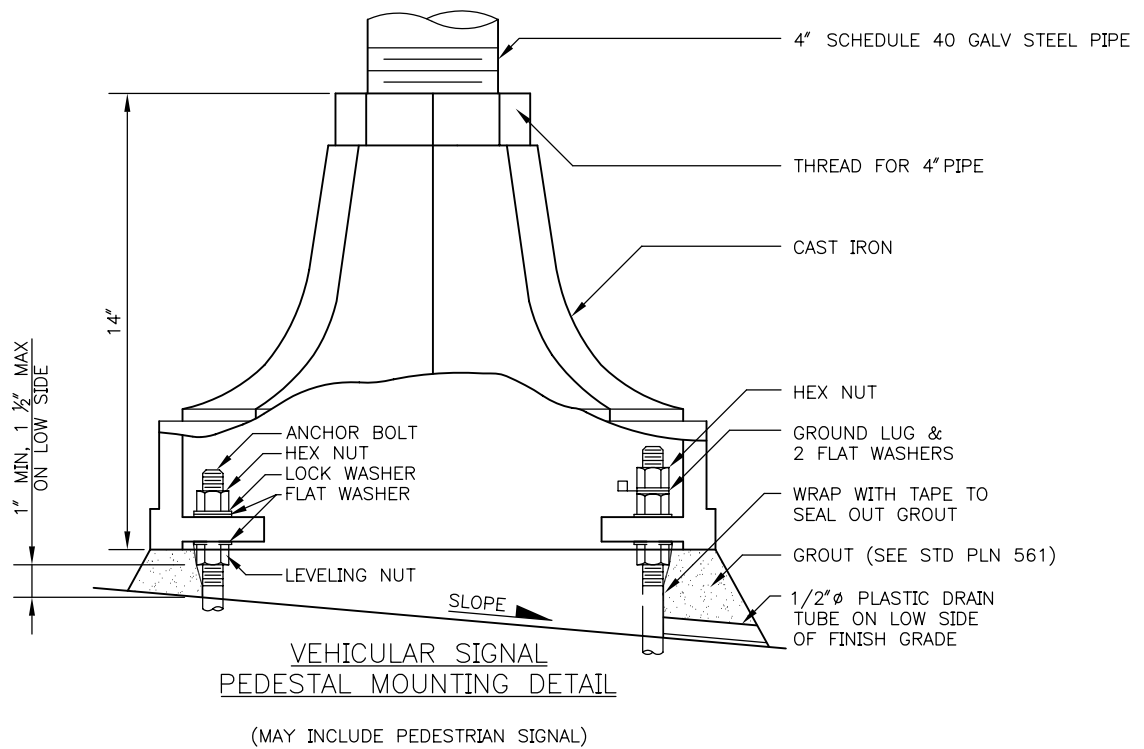
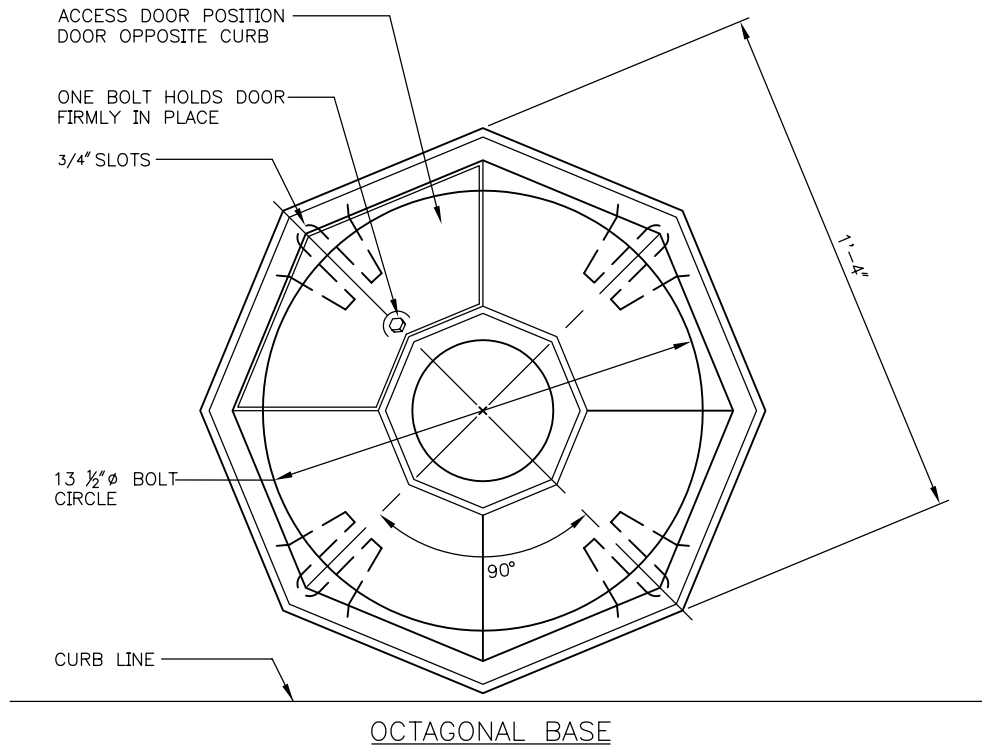
REF STD SPEC SEC 8-32



City of Seattle

NOT TO SCALE

PEDESTAL & FOUNDATION



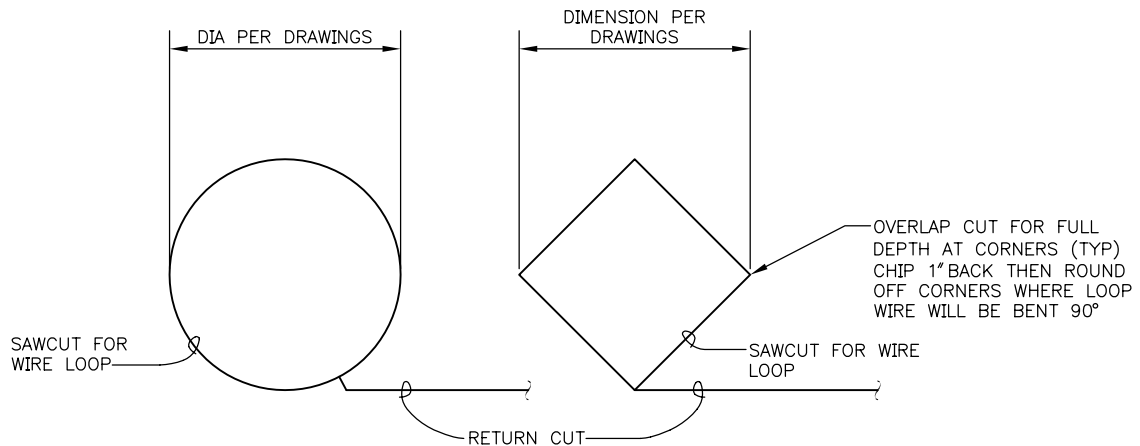
REF STD SPEC SEC 8-32

SEE STD PLAN NO. 524a  
FOR PEDESTAL FOUNDATION

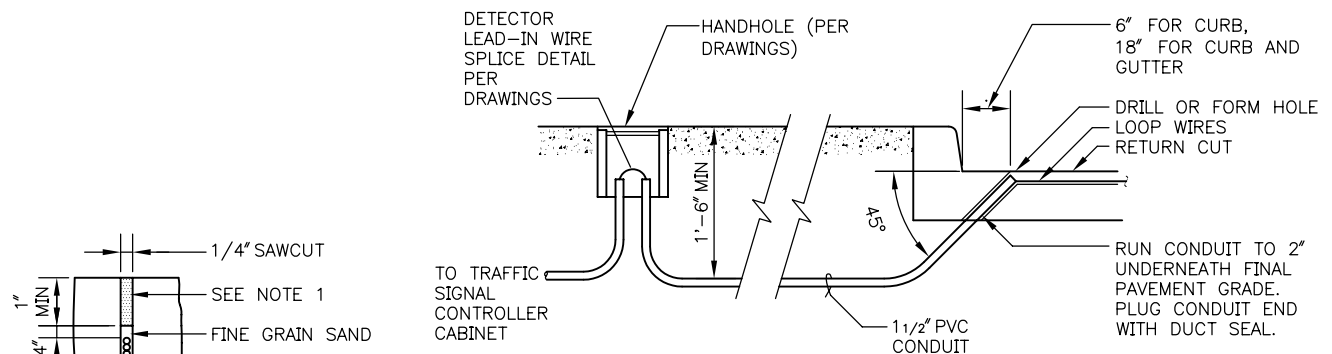
City of Seattle

NOT TO SCALE

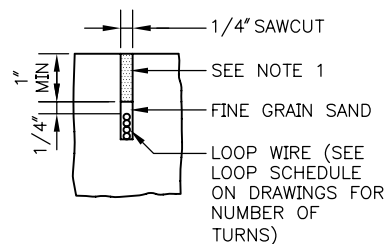
PEDESTAL



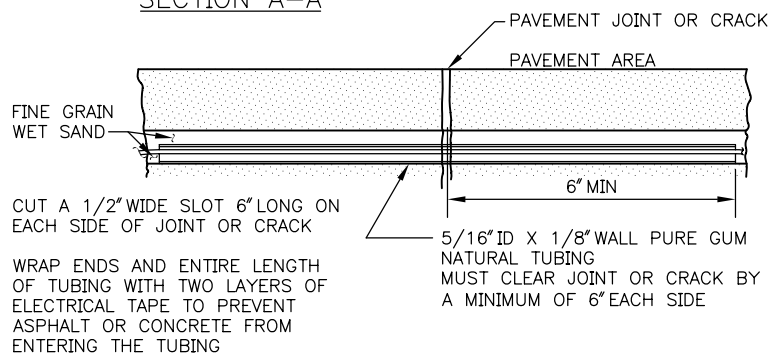
DIPOLE LOOP  
DETECTORS



CURB/PAVEMENT ENTRANCE  
FOR DETECTOR LOOP WIRES



SECTION A-A



PAVEMENT JOINT OR CRACK DETAIL

NOTES:

1. FILL CUT AFTER VERTICAL PLACEMENT AND TESTING WITH HOT PAVING GRADE LIQUID ASPHALT ASTM D 312 TYPE III OR QUICK SETTING HIGH STRENGTH GROUT
2. SHARP EDGE TOOLS SHALL NOT BE USED IN PLACING CONDUCTORS IN SAW CUTS
3. EACH PAIR OF LOOP WIRES IN THE RETURN CUT SHALL BE TWISTED A MINIMUM OF 3 TURNS PER FOOT AND MAY SHARE COMMON RETURN CUTS WITH OTHER TWISTED PAIRS
4. TAPE LOOP WIRE A MINIMUM OF 2 TURNS AT EACH CORNER
5. REMOVE SHARP CORNER EDGES IN SAW CUTS WHERE LOOP WIRE WILL BE BENT AROUND
6. PERFORM RESISTANCE AND CONTINUITY TESTS PRIOR TO SEALING LOOP WIRES
7. COIL 5'-0\"/>

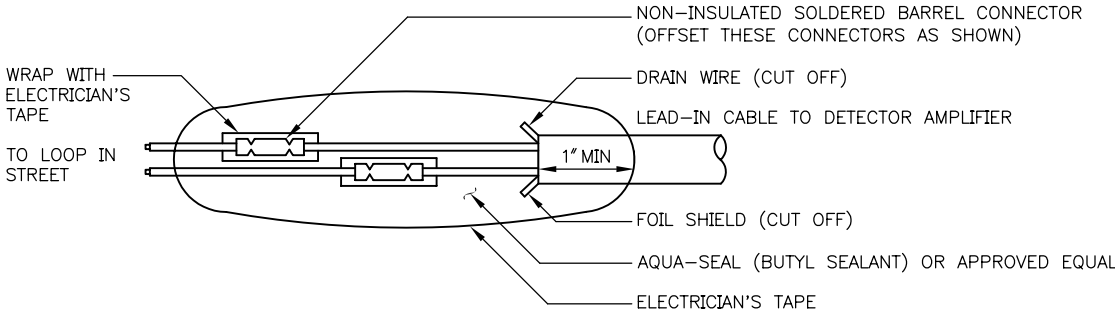
REF STD SPEC SEC 8-31



City of Seattle

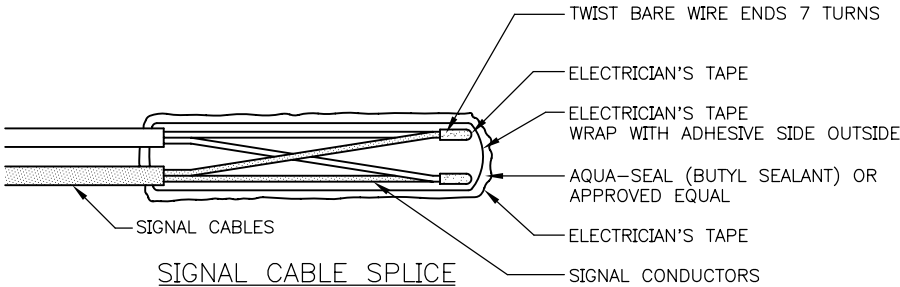
NOT TO SCALE

LOOP DETECTORS



DETECTOR LEAD-IN WIRE SPLICE DETAIL

NOTE:  
SOLDER CONNECTION AFTER CRIMPING



SIGNAL CABLE SPLICE

REF STD SPEC SEC 8-31



City of Seattle

NOT TO SCALE

DETECTOR LOOP WIRE AND  
SIGNAL CABLE SPLICE



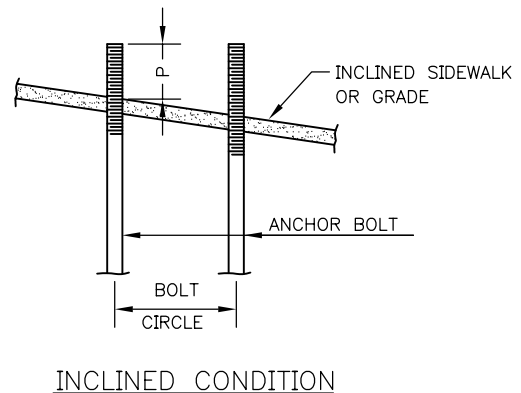
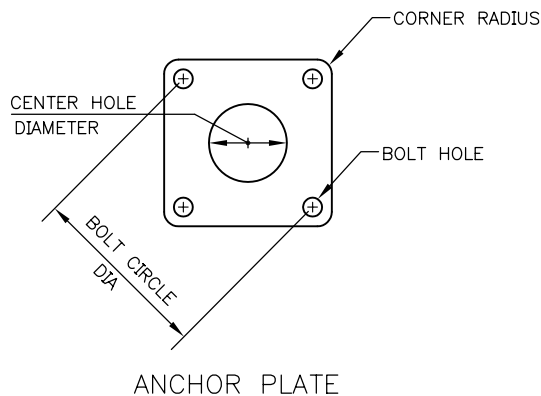
## REV DATE: 2005



STRAIN POLE  
FOUNDATION DETAIL  
(TYPE T, V, X & Z)

FOUNDATION SCHEDULE											
POLE TYPE	PROJECTION		VERTICAL REINFORCING	DEPTH (LATERAL BEARING)		ANCHOR BOLTS (TOTAL 4 PER POLE)	ANCHOR PLATE DIMENSIONS				
	P	P* (CHIEF SEATTLE BASE)		100#/SF/FT	150/SF/FT		SIZE	BOLT CIRCLE DIA	BOLT HOLE	CENTER HOLE	CORNER RADIUS
T	7½"	8"	8 #7	8'-0"	7'-6"	1½" DIA X 54"	⅜" X 16" X 16"	14½"	1⅝"	10"	1⅝"
V	9"	9"	8 #8	9'-6"	8'-6"	1¾" DIA X 72"	⅜" X 16" X 16"	18"	1⅞"	12½"	1⅝"
X	10"	10"	12 #8	12'-6"	10'-6"	2" DIA X 72"	⅜" X 18" X 18"	20"	2⅛"	14"	2"
Z	11½"	11½"	12 #8	15'-0"	13'-0"	2½" DIA X 72"	½" X 20" X 20"	22"	2⅝"	15"	2¼"

\* SEE STD PLAN NO 542a AND 542b



### POLE FOUNDATION NOTES

1. CONCRETE STRENGTH SHALL BE CLASS AX AIR ENTRAINED, 3/4" MAX SIZE COARSE AGGREGATE.
2. ANCHOR BOLTS FOR TYPE V,X,Z: ASTM F 1554-99, GRADE 105, CLASS 2A INCLUDING SUPPLEMENTARY REQUIREMENTS S2, S3 AND S5. ANCHOR BOLTS FOR TYPE T: ASTM A576 (TYPE 1040 OR 1045) FY=55 KSI MIN., ASTM A675 GRADE 90 OR ASTM A36 MOD FY=55 KSI. NUTS: ASTM A563 HEAVY HEX GRADE DH. HARDENED STEEL WASHERS: ASTM F436.
3. ANCHOR PLATE: ASTM A36. HOT DIP GALVANIZED.
4. ALL REINFORCING BARS SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM CLASS A615, GRADE 60.
5. ANCHOR BOLTS SHALL BE HOT DIP GALVANIZED ASTM A153 INCLUDING NUTS & WASHERS (FULL LENGTH) WITH A MINIMUM OF 18" OF THREADS ON TOP & 12" ON BOTTOM
6. LATERAL BEARING IS BASED ON THE SOIL CLASSIFICATION USED IN THE 1997 UNIFORM BUILDING CODE UNDER TABLE 18-I-A.
7. TAPE THE TOP OF ANCHOR BOLTS WITH CORROSION PROTECTION TAPE PER STD SPEC SEC 8-32.3(2)A PRIOR TO POURING CONCRETE.

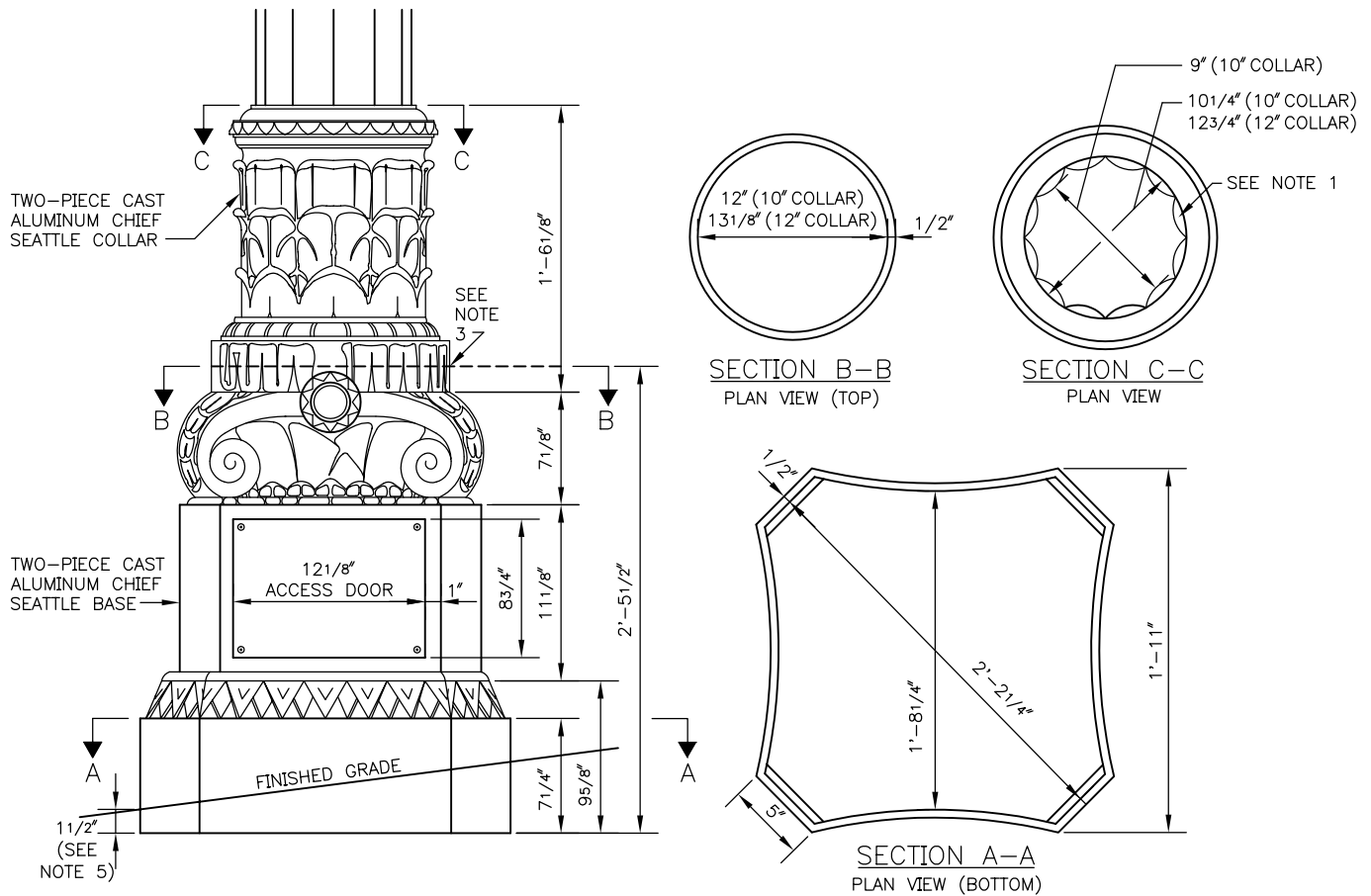
REF STD SPEC SEC 8-32



City of Seattle

NOT TO SCALE

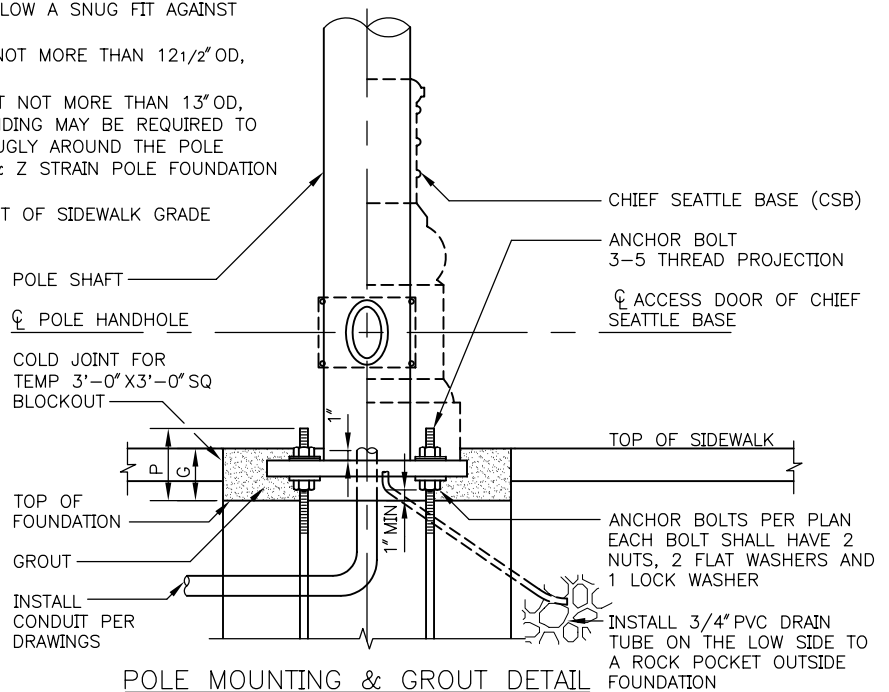
STRAIN POLE FOUNDATION  
SCHEDULE & NOTES  
(TYPE T,V,X & Z)

**NOTES:**

1. FOR POLE DIAMETER GREATER THAN 9 1/2" BUT NOT MORE THAN 10" OD, A 10" COLLAR SHALL BE USED & THE FLUTES ON THE TOP OF THE COLLAR MAY HAVE TO BE GROUND OFF TO ALLOW A SNUG FIT AGAINST THE POLE
2. FOR POLE DIAMETER GREATER THAN 10" BUT NOT MORE THAN 12 1/2" OD, A 12" COLLAR SHALL BE USED
3. FOR POLE DIAMETER IN EXCESS OF 12 1/2" BUT NOT MORE THAN 13" OD, THE COLLAR SHALL NOT BE USED. SOME GRINDING MAY BE REQUIRED TO ALLOW THE TWO PIECE CAST BASE TO FIT SNUGLY AROUND THE POLE
4. SEE STD PLAN NO 542b FOR TYPE T, V, X & Z STRAIN POLE FOUNDATION DETAILS
5. BASE SHALL BE EMBEDDED 1 1/2" AT LOW POINT OF SIDEWALK GRADE

POLE TYPE	G	P
T	6 1/2"	8"
V	6 1/2"	9"
X	7"	10"
*Z	11 1/2"	11 1/2"

\*CSB WILL NOT FIT OVER ANCHOR BOLT NUTS THEREFORE BOLTS MUST BE SET BELOW SIDEWALK



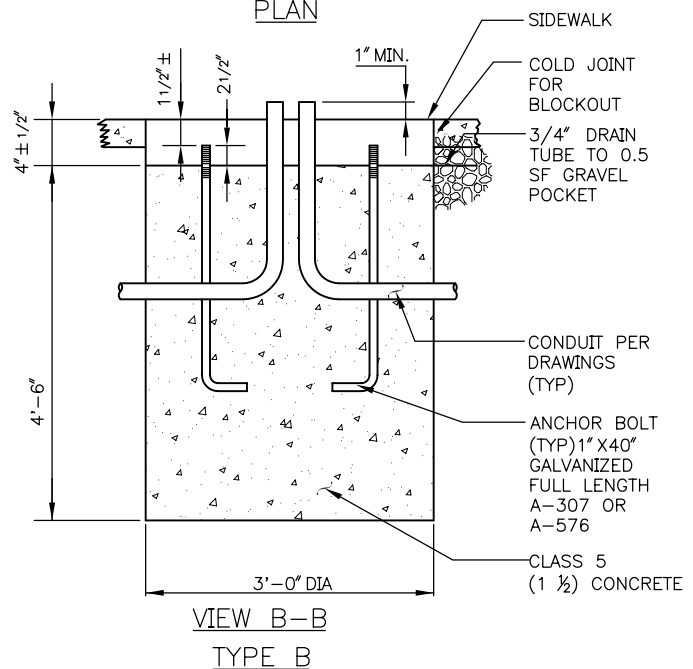
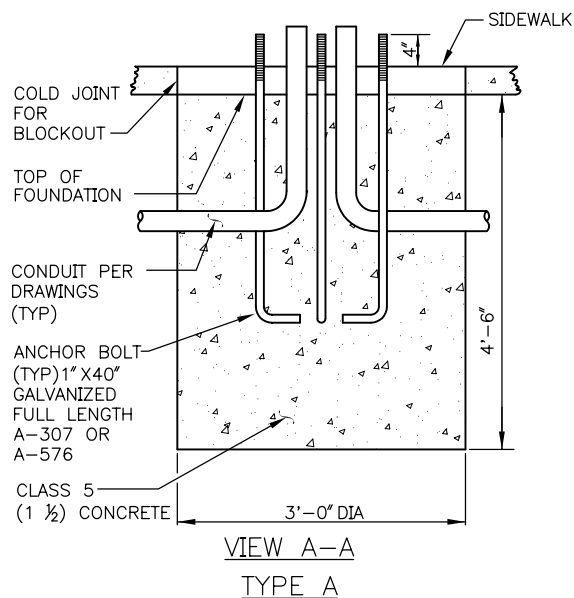
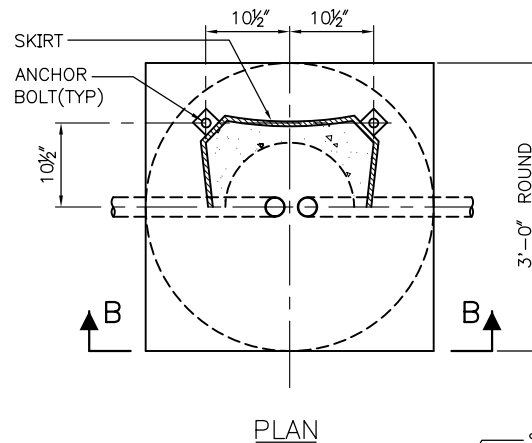
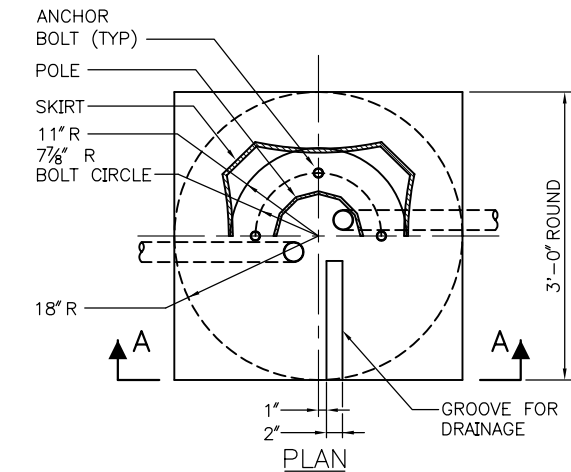
REF STD SPEC SEC 8-32



City of Seattle

NOT TO SCALE

CHIEF SEATTLE BASE (CSB)



BOLT PATTERN MUST BE DIAMOND SHAPE TO CURB.

TO BE USED FOR CONCRETE FILLED POLE, BOLTS ARE PARALLEL TO CURB.

NOTES:

1. FOR TYPE "A" FOUNDATION ALIGN THE CHIEF SEATTLE BASE ACCESS COVER ON THE SAME SIDE WITH THE POLE HANDHOLE, AND CONDUITS.
2. TAPE TOP OF ANCHOR BOLTS WITH CORROSION PROTECTION TAPE PER SPECS.
3. FOR TYPE "A" FOUNDATION, THE TOP 3 1/2" SHALL BE FORMED INTO A SQUARE AND POURED PRIOR TO SETTING POLES.
4. FOR TYPE "B" FOUNDATION, THE TOP 5 1/2" SHALL BE FORMED INTO A SQUARE AND POURED AFTER SETTING THE POLE.
5. INSTALL UFER GROUND IN FOUNDATION (SEE STD PLAN NO 500a)

REF STD SPEC SEC 8-32



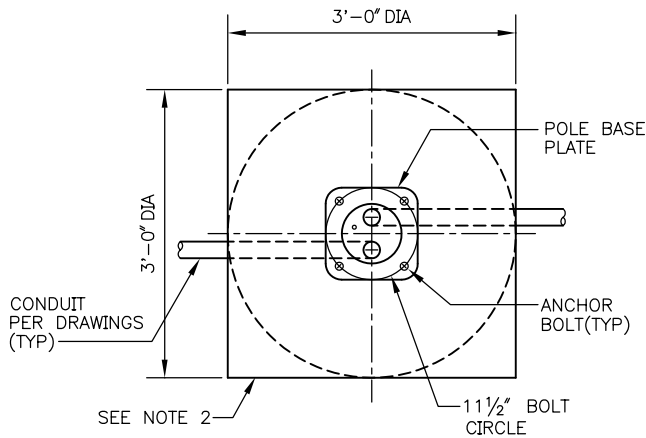
City of Seattle

NOT TO SCALE

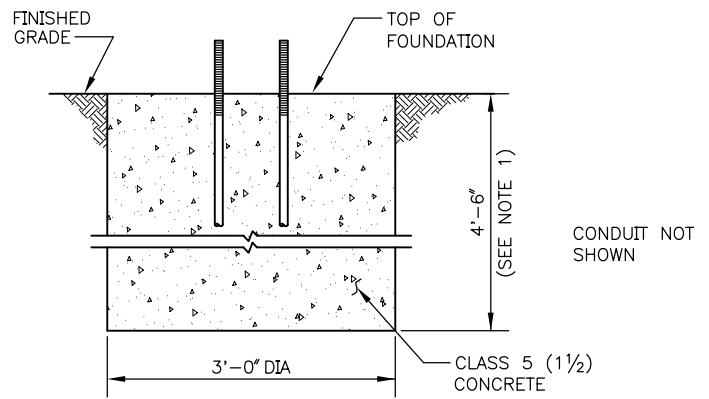
CHIEF SEATTLE STREET LIGHT POLE FOUNDATION

# STANDARD PLAN NO 543

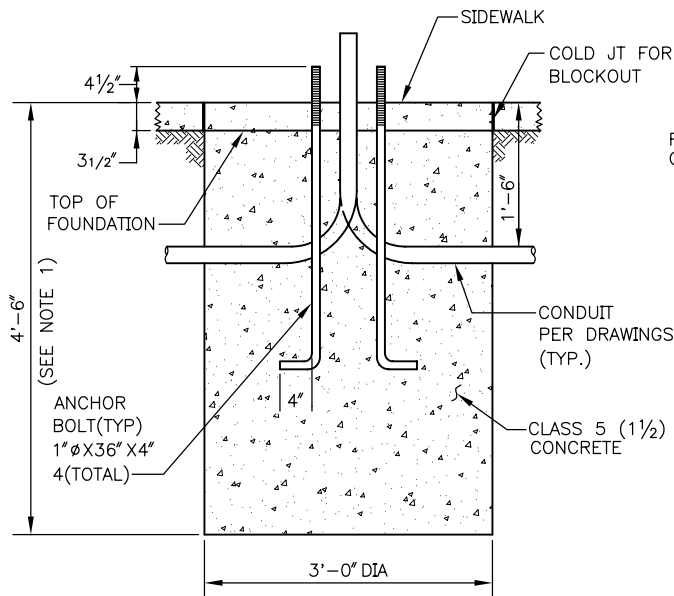
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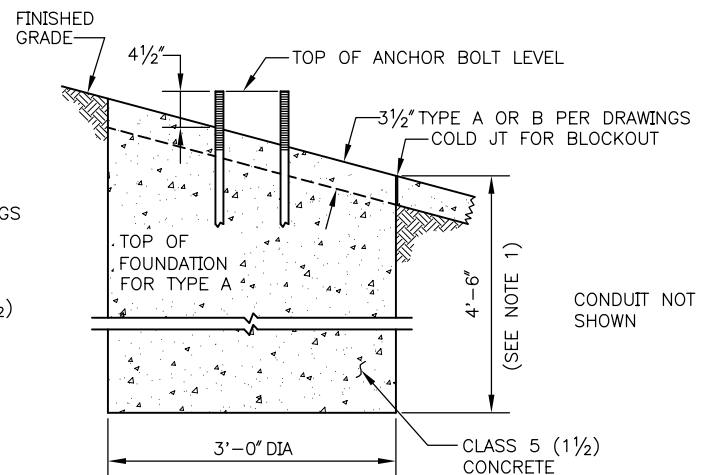
PLAN



IN EARTH  
(TYPE B)



IN SIDEWALK  
(TYPE A)



ON AN INCLINE

## NOTES:

1. 5 FT WHERE LOCATED ON FILL OR WHERE SLOPE IS 3:1 OR STEEPER.
2. TOP 3 1/2" TO BE FORMED INTO A 36" SQUARE BLOCKOUT AND POURED SEPARATELY IN TYPE A AND IN ONE PIECE IN TYPE B.
3. BOLT CIRCLE-11 1/2" TYP. (TRANSFORMER BASE-15" TYP.)
4. SEE STD PLAN NO 563 FOR POLE MOUNTING AND GROUT DETAIL.
5. TAPE TOP OF ANCHOR BOLTS W/CORROSION PROTECTION TAPE PER SPECS 8-32.3(2)A
6. SEE STD PLAN NO 572 FOR STEEL STREET LIGHT POLE DETAIL AND CITY LIGHT MATERIAL STD NO 5739.8 FOR ALUMINUM STREET LIGHT POLE.
7. ANCHOR BOLTS SHALL BE HOT DIP GALVANIZED (ASTM A 153) FULL LENGTH AND FABRICATED FROM ASTM A 307 OR A 576.
8. INSTALL UFER GROUND IN FOUNDATION (SEE STD PLAN NO 500a)

REF STD SPEC SEC 8-32



City of Seattle

NOT TO SCALE

STREET LIGHT POLE  
FOUNDATIONS

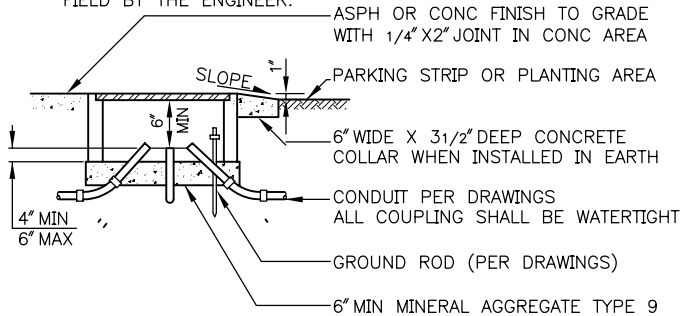
## HANDHOLE SCHEDULE

HANDHOLE TYPE	TOP UNIT INSIDE DIMENSIONS			EXTENSION UNIT(E)	LID DIMENSIONS		
	L	W	H		L	W	
1	19"	14"	12"	12"	17"	13"	
2	28"	17"	12"	12"	26 3/8"	17 1/2"	
3	36"	24"	12"	12"	35"	24"	
4	24" DIA	VAR		NA	NA	NA	
5	36"	24"	32"	NA	35"	24"	
6	42"	42"	38 1/2"	NA	33 1/2"	35 1/2"	
GRHH		8" DIA		NA			

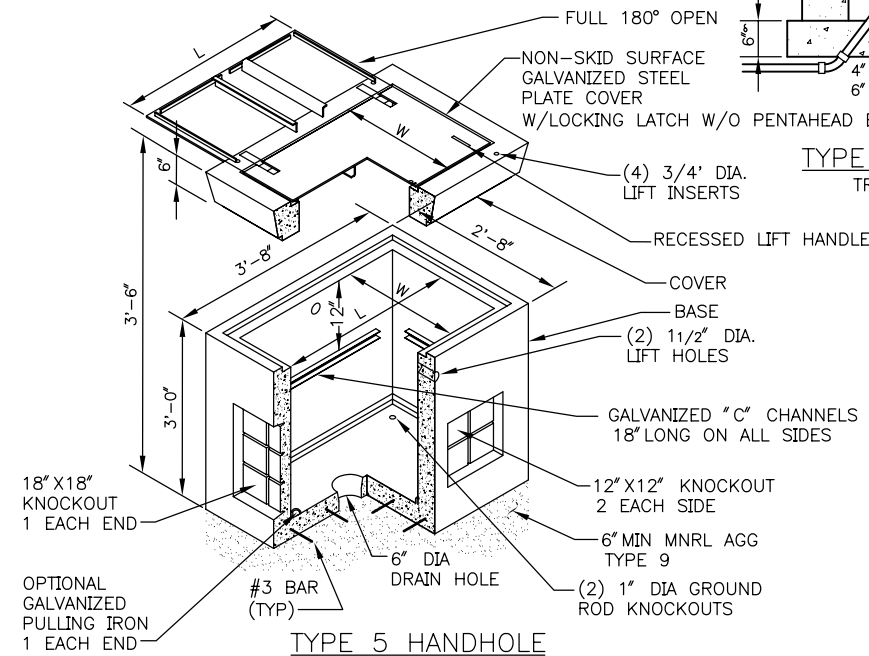
REV DATE: 2005

## NOTES:

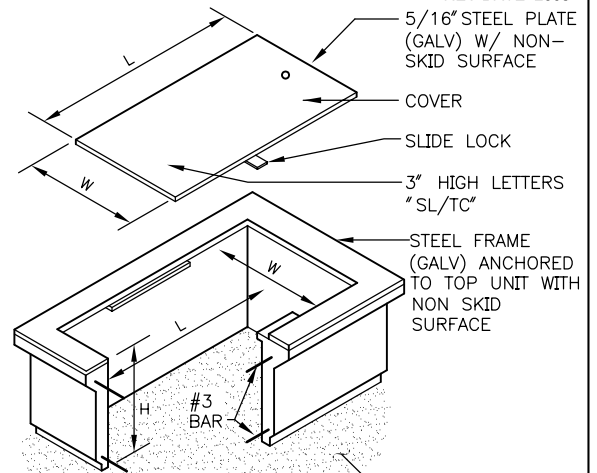
- THE COVER SHALL HAVE 1/16" TO 1/8" CLEARANCE ON EACH EDGE WITHIN THE FRAME AFTER GALVANIZING
- THE GROUND ROD SHALL EXTEND 4" ABOVE THE BOTTOM OF THE HANDHOLE
- TYPE 1, 2, 3, 5 & 6 HANDHOLE COVERS SHALL HAVE "TC" OR "SL" ON THEM, AS APPROPRIATE
- TYPE 4 HANDHOLE SHALL BE INSTALLED IN ROADWAYS, PARKING LOTS, ETC
- FOR PAVEMENT DEPTH GREATER THAN 7" USE FRAME EXTENSIONS (SEE STD PLAN NO 231) TO BRING THE COVER UP TO THE LEVEL OF THE FINISHED PAVEMENT WITHOUT EMBEDDING THE BOTTOM FLANGE OF THE CASTING IN THE PAVEMENT
- A 4'-LENGTH OF #8 THWN OR THHN COPPER WIRE SHALL BE SECURED FROM THE HANDHOLE LID TO THE FRAME. WITH A 4'-0" LENGTH FROM FRAME THAT CAN BE HOOKED UP TO A GROUND ROD
- BUNDLE CABLE IN HANDHOLES TO PROVIDE ORDERLY GROUPING OF CABLES
- ALL HANDHOLE LIDS AND FRAMES SHALL HAVE A NON-SKID SURFACE (SEE STD SPEC SEC 9-34.6)
- CONDUIT ELBOWS OR SWEEPS INTO HANDHOLE SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.



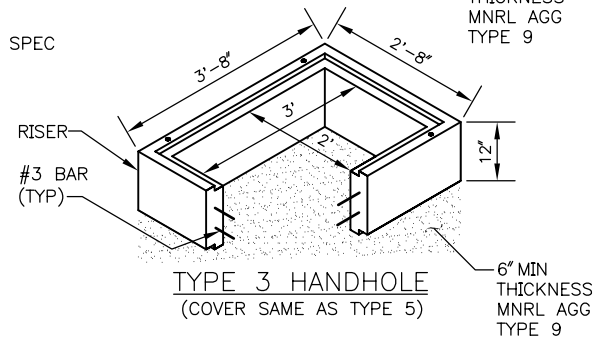
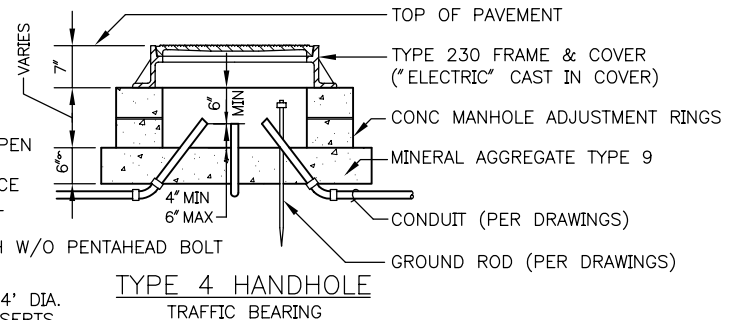
## HANDHOLE INSTALLATION DETAIL



## TYPE 5 HANDHOLE



## TYPE 1&amp;2 HANDHOLE

TYPE 3 HANDHOLE  
(COVER SAME AS TYPE 5)TYPE 4 HANDHOLE  
TRAFFIC BEARING

REF STD SPEC SEC 8-33



City of Seattle

NOT TO SCALE

HANDHOLES

SPRING ASSISTED GALVANIZED  
PLATE COVER  
W/ LOCKING LATCH  
W/ NON-SKID SURFACE  
W/O PENTAHEAD BOLT

1  $\frac{1}{2}$ " DIA LIFT HOLES,  
1 EACH SIDE

GALVANIZED "C" CHANNEL,  
2' LONG, 1 EACH SIDE

(2) 2  $\frac{1}{2}$ " DIA GROUND  
ROD KNOCKOUTS

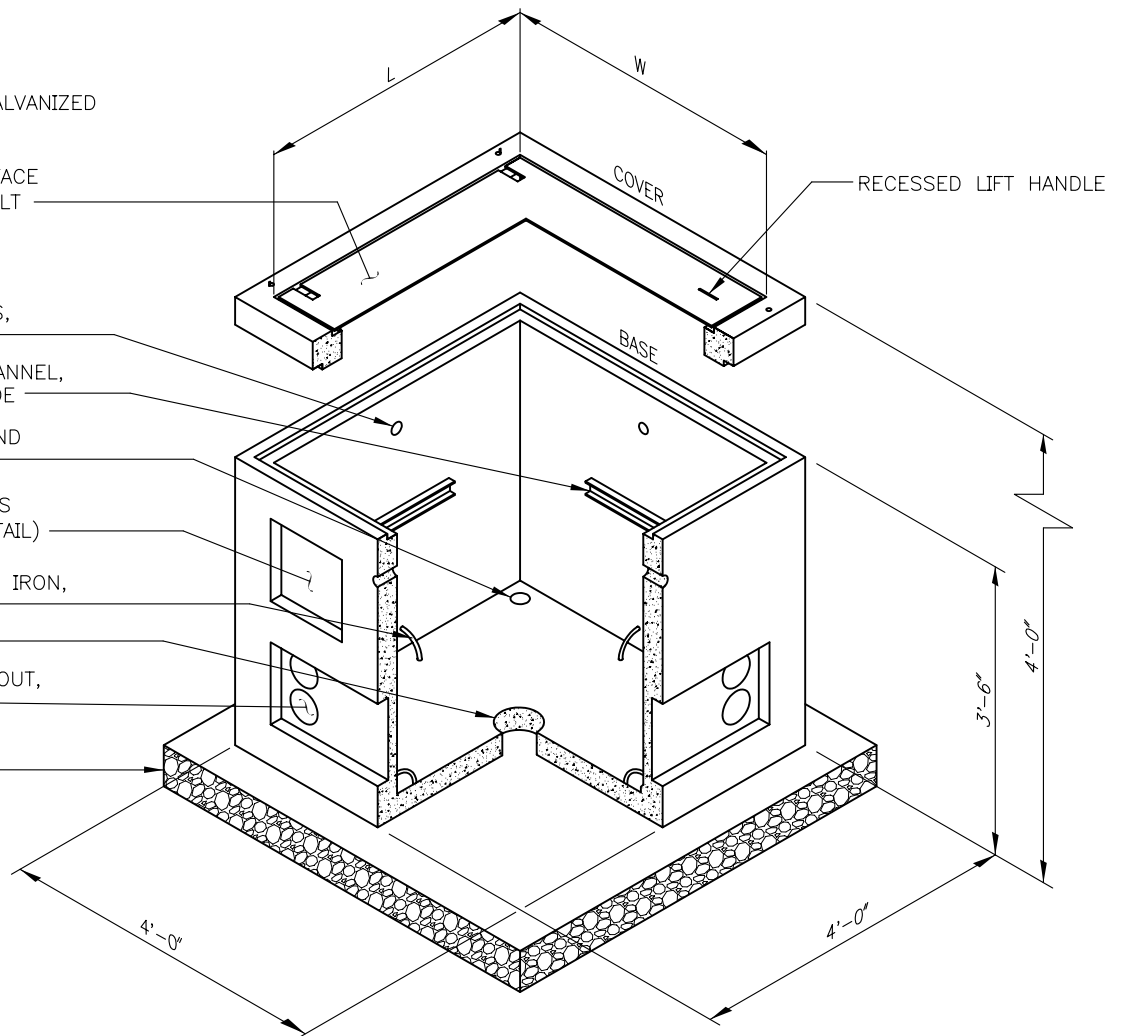
KNOCKOUT ALL SIDES  
(SEE KNOCKOUT DETAIL)

GALVANIZED PULLING IRON,  
1 EACH SIDE

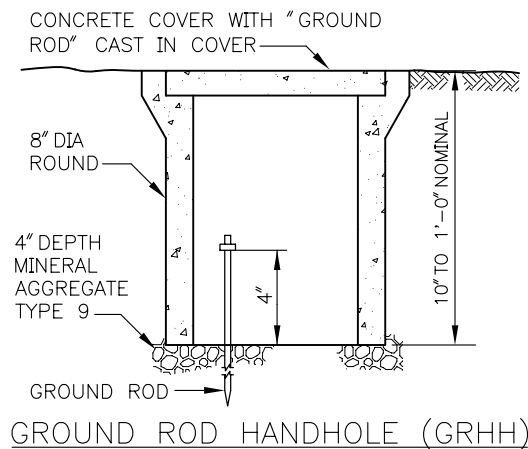
6" DIA DRAIN HOLE

(4)  $4\frac{3}{4}$ " DIA KNOCKOUT,  
ALL SIDES

6" MIN MINERAL  
AGGREGATE TYPE 9



TYPE 6 HANDHOLE



GROUND ROD HANDHOLE (GRHH)

REF STD SPEC SEC 8-33



City of Seattle

NOT TO SCALE

HANDHOLES

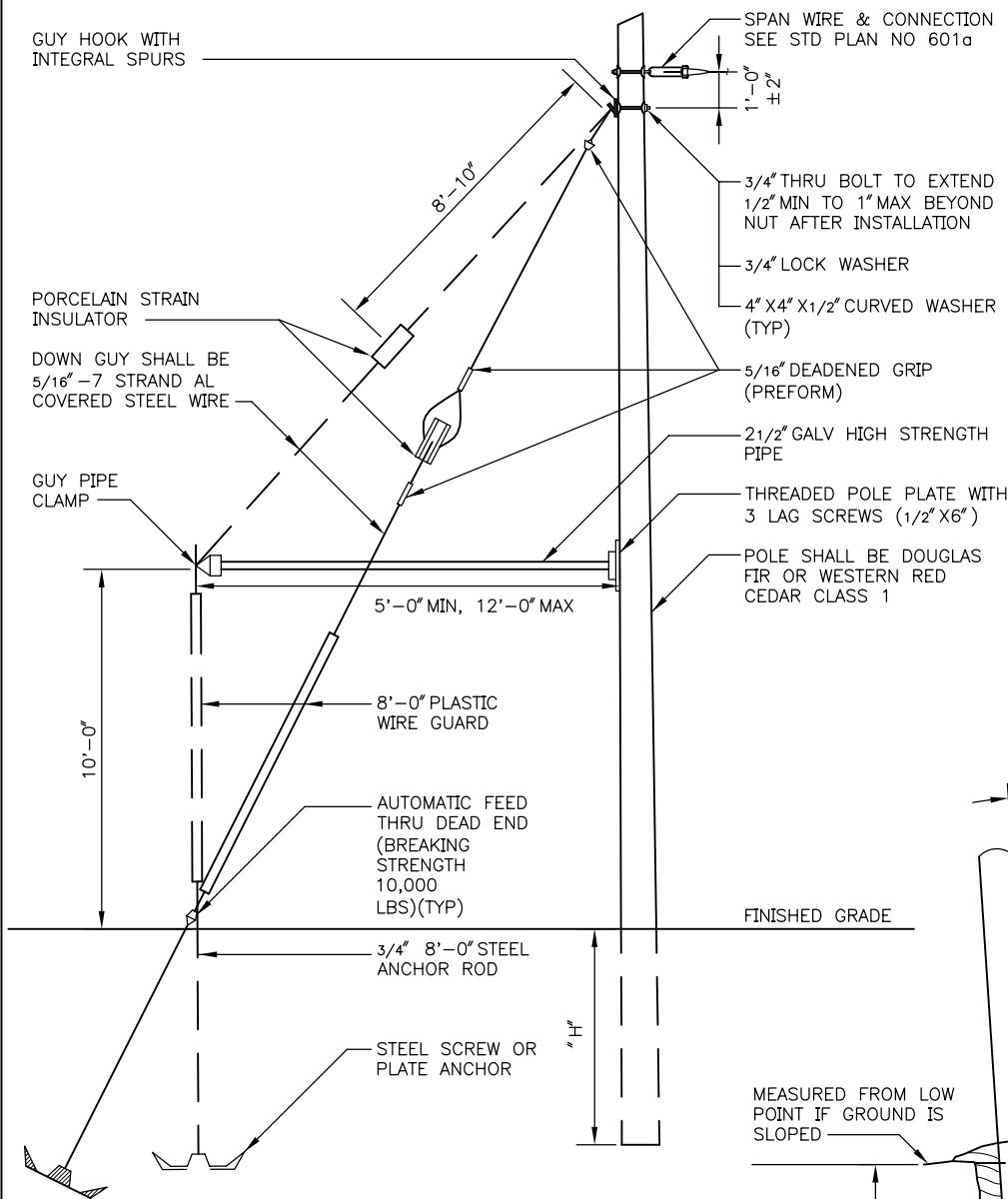
# STANDARD PLAN NO 560

REV DATE: 2003

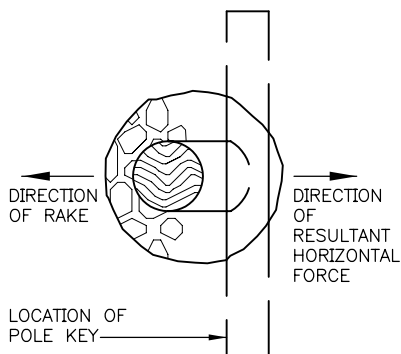
POLES SHALL BE MARKED (BRANDED) BY MANUFACTURER WITH THE FOLLOWING INFORMATION:

1. CLASS
2. LENGTH
3. MANUFACTURER
4. TYPE OF PRESERVATIVE

LENGTH OF POLE	"H"
20'-0" & 25'-0"	5'-0"
30'-0"	5'-6"
35'-0" & 40'-0"	6'-0"



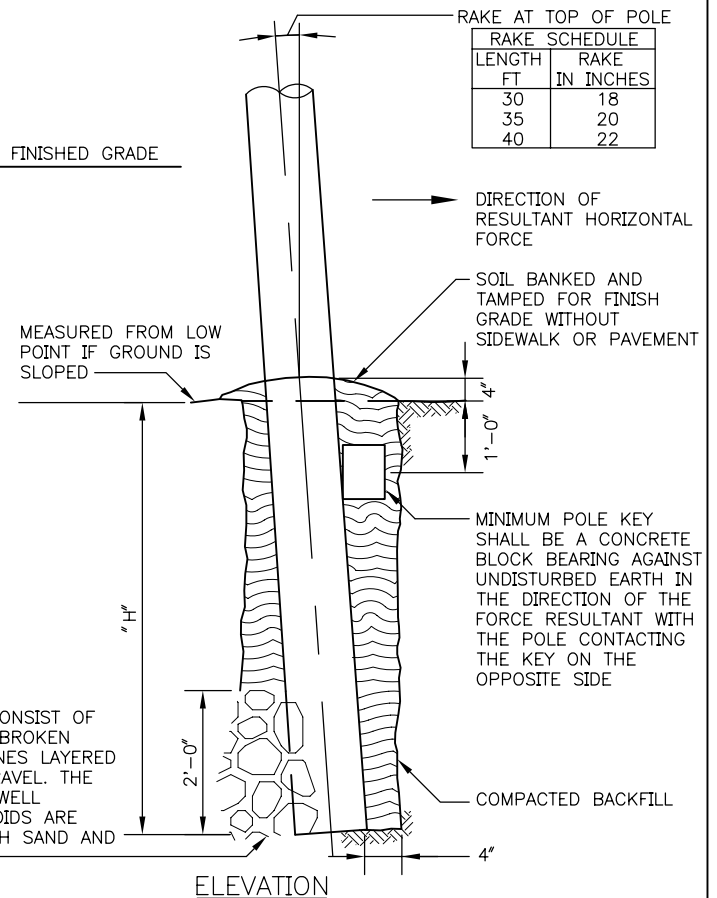
WOOD POLE DOWN & SIDEWALK GUY



PLAN

POLE TOE SHALL CONSIST OF BUILDING BLOCKS, BROKEN CONCRETE OR STONES LAYERED WITH SAND AND GRAVEL. THE LAYERS SHALL BE WELL TAMPED SO THE VOIDS ARE FILLED SOLIDLY WITH SAND AND GRAVEL.

WOOD POLE KEYING STANDARD



ELEVATION

REF STD SPEC SEC 8-32 AND SCL CONSTRUCTION GUIDELINES D6-4

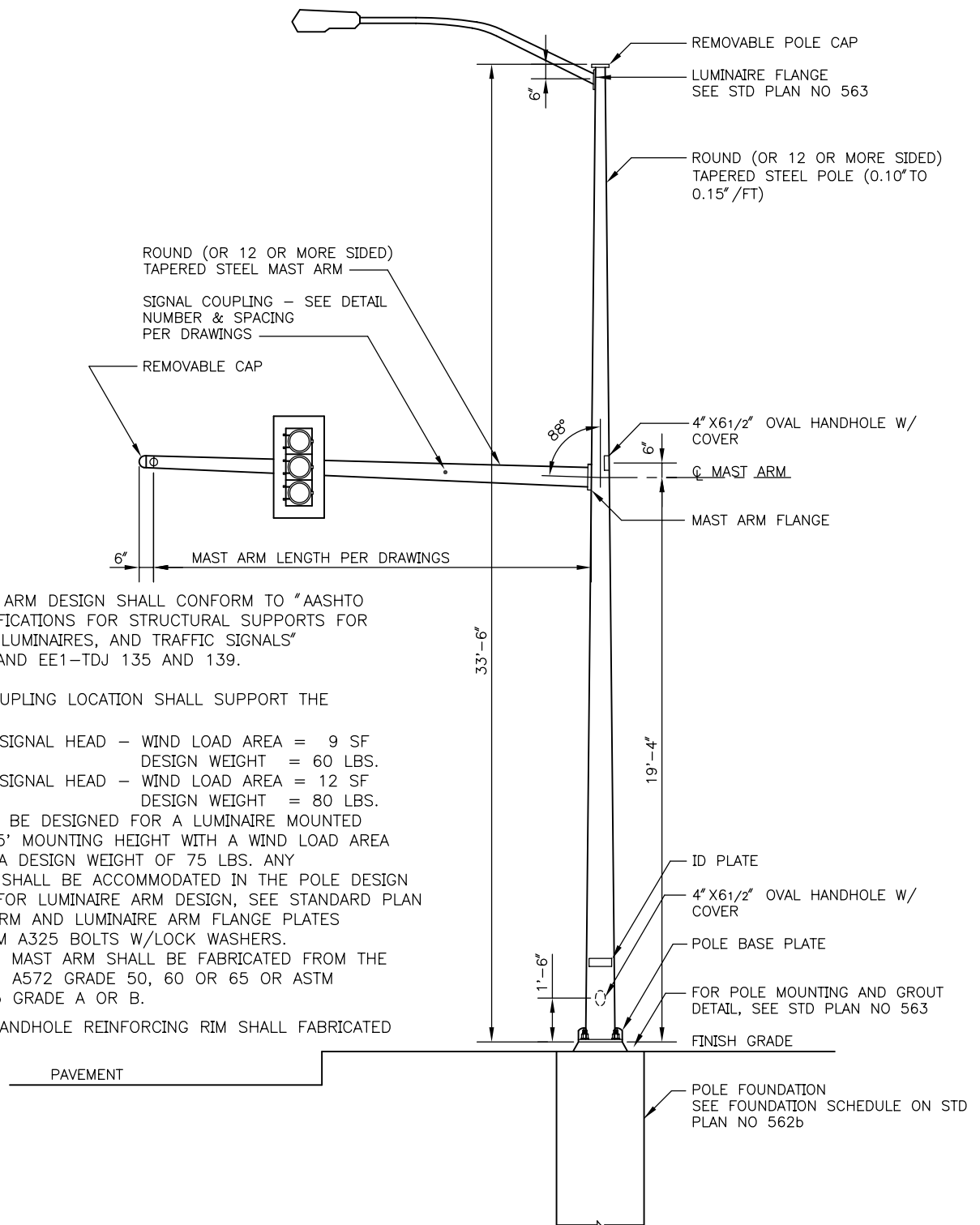


City of Seattle

NOT TO SCALE

WOOD STRAIN POLES



**NOTES:**

- POLE AND MAST ARM DESIGN SHALL CONFORM TO "AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" (1994 EDITION) AND EE1-TDJ 135 AND 139.
- EACH SIGNAL COUPLING LOCATION SHALL SUPPORT THE FOLLOWING:  
FOR 3 SECTION SIGNAL HEAD - WIND LOAD AREA = 9 SF  
DESIGN WEIGHT = 60 LBS.  
FOR 4 SECTION SIGNAL HEAD - WIND LOAD AREA = 12 SF  
DESIGN WEIGHT = 80 LBS.
- THE POLE SHALL BE DESIGNED FOR A LUMINAIRE MOUNTED AT A NOMINAL 35' MOUNTING HEIGHT WITH A WIND LOAD AREA OF 3.2 SF AND A DESIGN WEIGHT OF 75 LBS. ANY PROPOSED SIGN SHALL BE ACCOMMODATED IN THE POLE DESIGN PER DRAWINGS. FOR LUMINAIRE ARM DESIGN, SEE STANDARD PLAN NO 572. MAST ARM AND LUMINAIRE ARM FLANGE PLATES SHALL HAVE ASTM A325 BOLTS W/LOCK WASHERS.
- POLE SHAFT AND MAST ARM SHALL BE FABRICATED FROM THE FOLLOWING: ASTM A572 GRADE 50, 60 OR 65 OR ASTM A595 GRADE A OR B.
- ALL PLATES & HANDHOLE REINFORCING RIM SHALL FABRICATED FROM ASTM A36

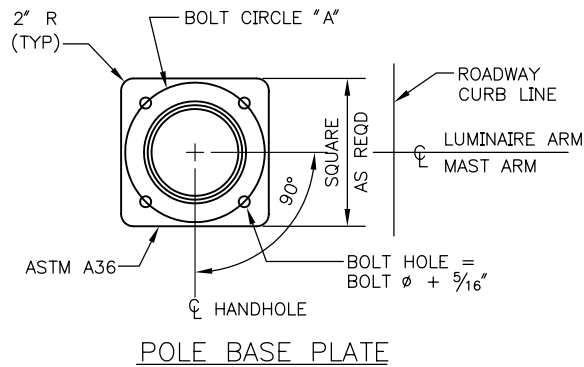
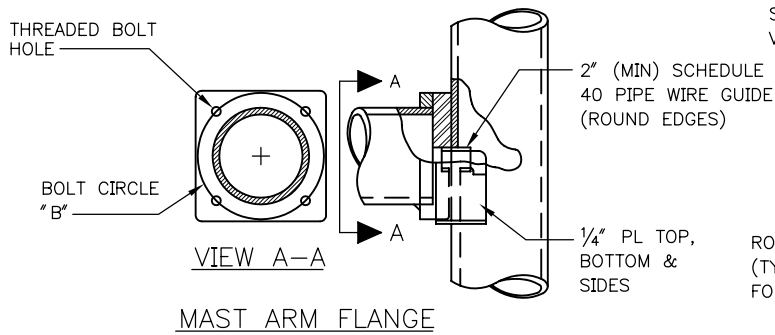
REF STD SPEC SEC 8-32



City of Seattle

NOT TO SCALE

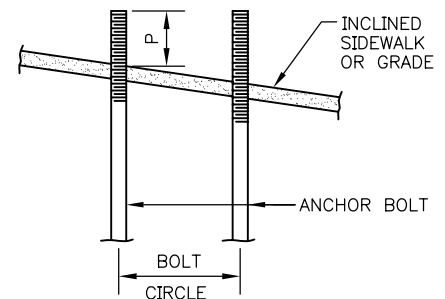
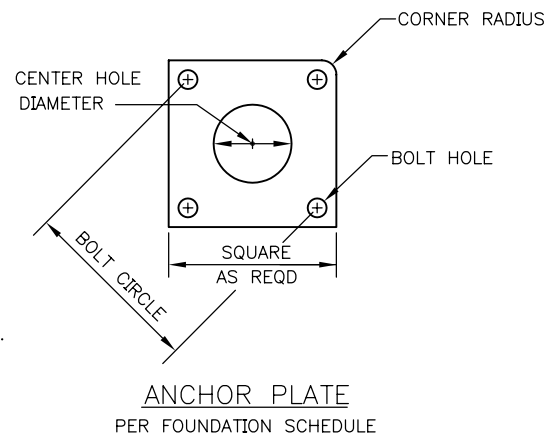
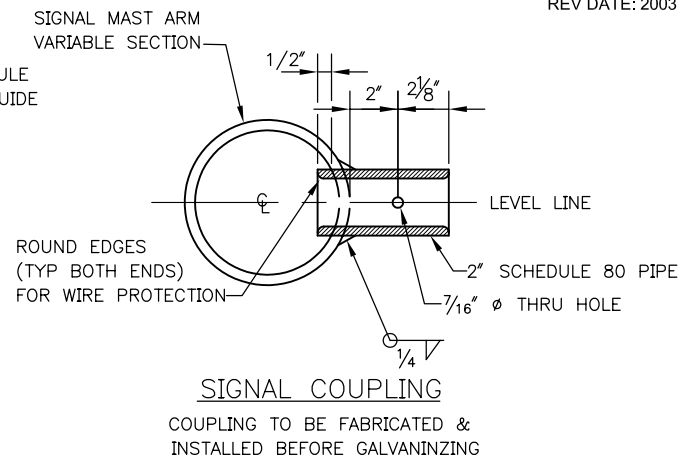
STEEL MAST ARM POLE



## POLE FOUNDATION NOTES

1. CONCRETE STRENGTH SHALL BE CLASS AX AIR ENTRAINED.
2. ANCHOR BOLTS SHALL HAVE  $F_y = 55$  KSI MIN, NUTS: ASTM A563 HEAVY HEX GRADE DH. HARDENED STEEL WASHERS: ASTM F436.
3. BOTTOM ANCHOR PLATE: ASTM A36. HOT DIP GALVANIZED.
4. ALL REINFORCING BARS SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM CLASS A615, GRADE 60.
5. ANCHOR BOLTS SHALL BE HOT DIP GALVANIZED ASTM A153 INCLUDING NUTS & WASHERS (FULL LENGTH) WITH A MINIMUM OF 18" OF THREADS ON TOP & 12" ON BOTTOM.
6. LATERAL BEARING IS BASED ON THE SOIL CLASSIFICATION USED IN THE 1997 UNIFORM BUILDING CODE UNDER TABLE 18-I-A.
7. TAPE THE TOP OF ANCHOR BOLTS WITH CORROSION PROTECTION TAPE PER STD SPEC SEC 8-32.3(2)A PRIOR TO POURING CONCRETE.
8. SEE STD PLAN NO 541A FOR FOUNDATION DETAILS.

MAST ARM SCHEDULE			POLE SCHEDULE		
MAST ARM LENGTH	FLANGE PLATE		POLE BASE PLATE		
	BOLT CIRCLE "B"	THREADED BOLT DIA	SIZE	BOLT CIRCLE "A"	BOLT HOLE
15'-0" TO 30'-0"	11"	1" -8NC	1 1/2" X 16" X 16"	14 1/2"	1 13/16"
31'-0" TO 40'-0"	12"	1 1/4" -7NC	1 3/4" X 18" X 18"	16 1/2"	2 1/16"
41'-0" TO 45'-0"	13 1/8"	1 1/4" -7NC	1 3/4" X 18" X 18"	18"	2 1/16"
46'-0" TO 60'-0"	14"	1 1/2" -6NC	2" X 20" X 20"	20"	2 5/16"



## INCLINED CONDITION

FOUNDATION SCHEDULE										
MAST ARM LENGTH	FOUNDATION DEPTH (LATERAL BEARING)		ANCHOR BOLTS (FY=55 KSI MIN.)			VERTICAL REINFORCING	ANCHOR PLATE DIMENSIONS			
	150/SF/FT	100#/SF/FT	PROJECTION	BOLT CIRCLE DIA	SIZE (J HOOK)		SIZE	BOLT CIRCLE DIA	BOLT HOLE	CORNER RADIUS
15'-30'	7'-6"	8'-0"	7 1/2"	14 1/2"	1 1/2" X 54" X 6"	8 #7	-	-	-	-
31'-40'	8'-6"	9'-6"	9"	16 1/2"	1 3/4" X 60" X 6"	8 #8	3/8" X 16" X 16"	16 1/2"	1 7/8"	1 5/8"
41'-45'	8'-6"	9'-6"	9"	18"	1 3/4" X 60" X 6"	8 #8	3/8" X 16" X 16"	18"	1 7/8"	1 5/8"
46'-60'	10'-6"	12'-6"	10"	20"	2" X 60" X 6"	12 #8	3/8" X 18" X 18"	20"	2 1/8"	14"

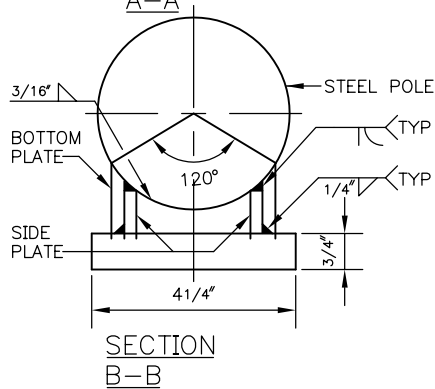
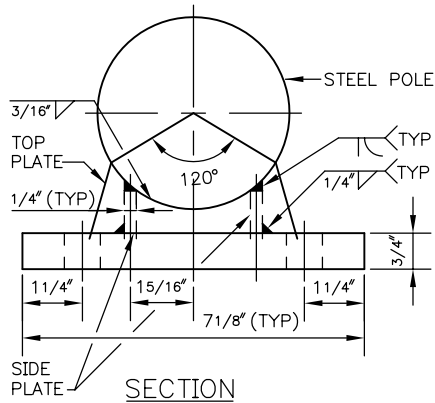
REF STD SPEC SEC 8-32



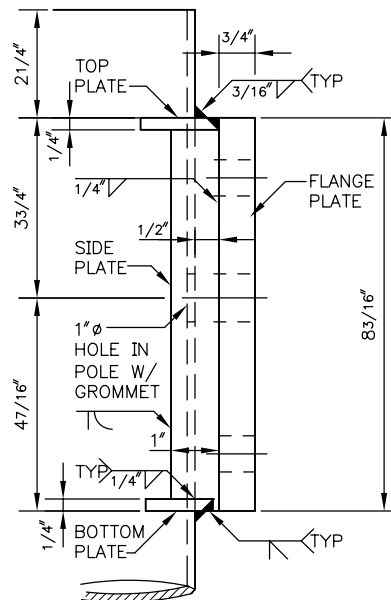
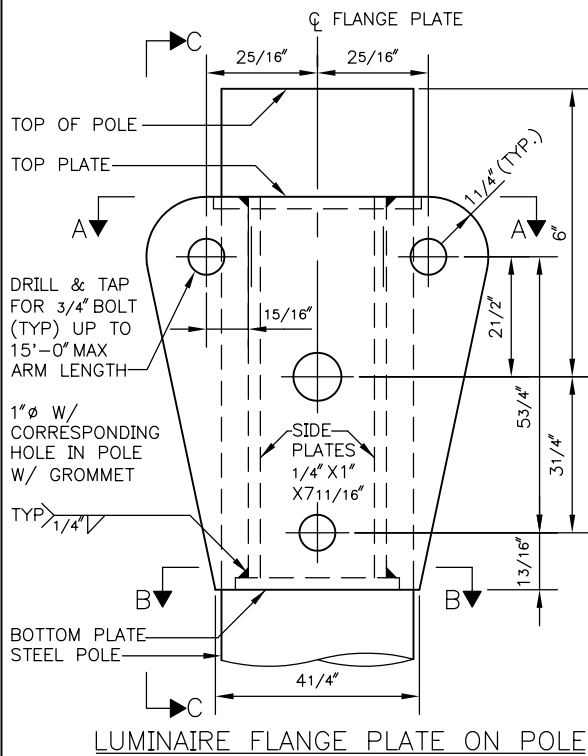
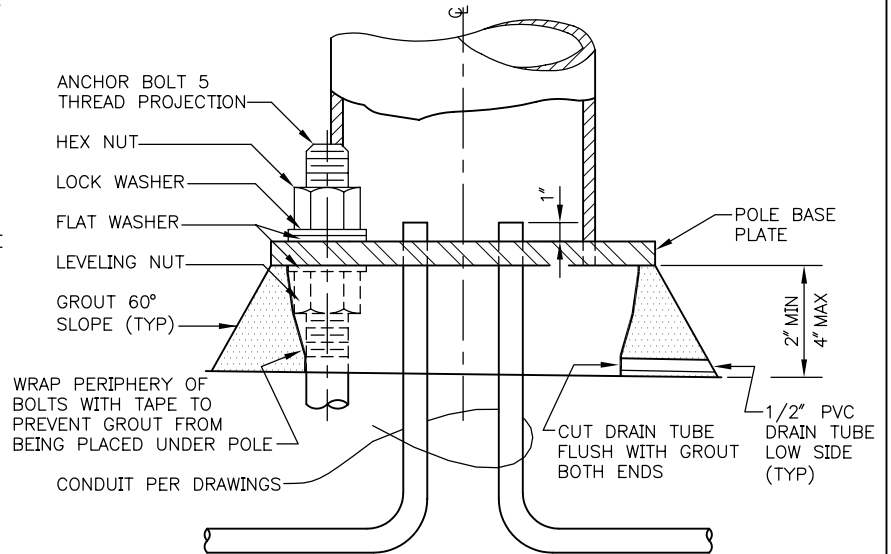
City of Seattle

NOT TO SCALE

STEEL MAST ARM POLE  
FOUNDATION SCHEDULE & DETAIL  
(W/O METRO TROLLEY LOADS)



NOTE:  
GROUT SHALL BE PREMIXED,  
NON-SHRINK AND NON-METALLIC



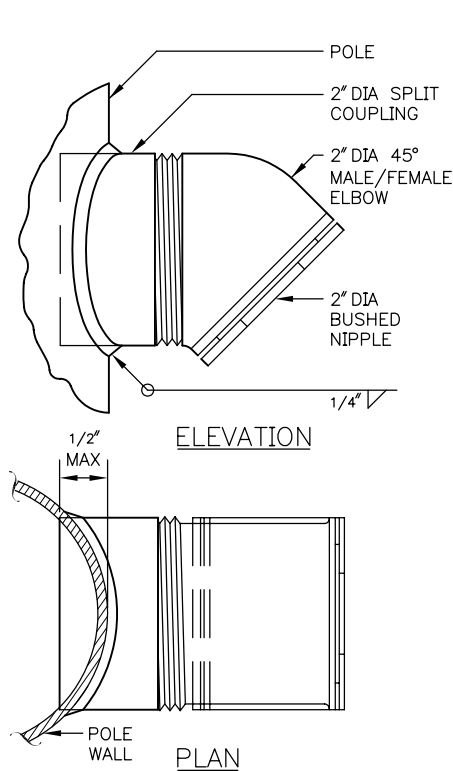
REF STD SPEC SEC 8-32



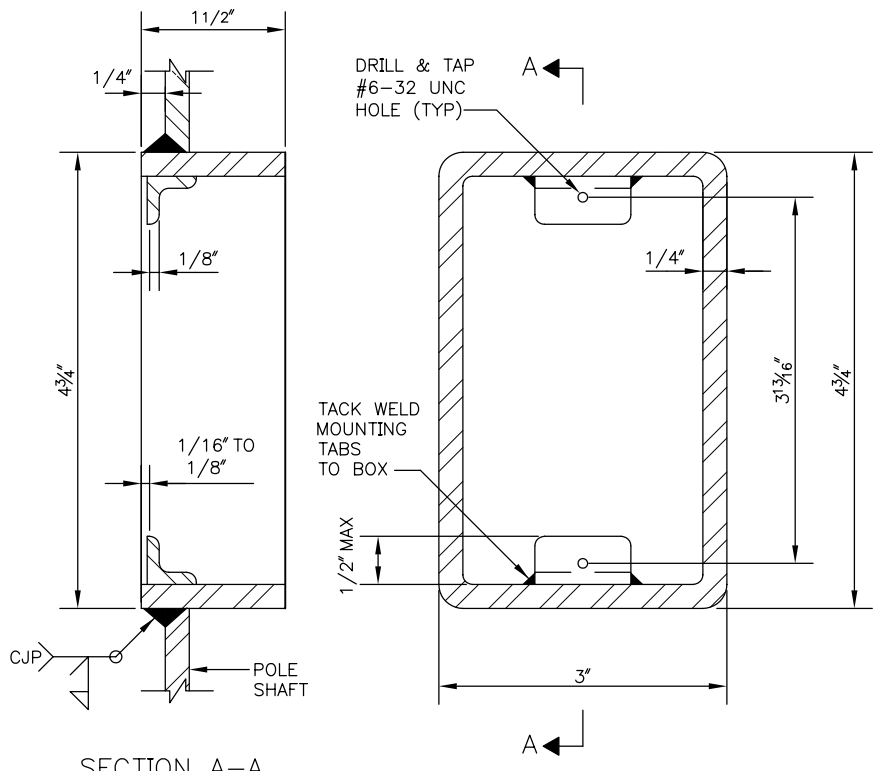
City of Seattle

NOT TO SCALE

MISCELLANEOUS STEEL  
POLE DETAILS

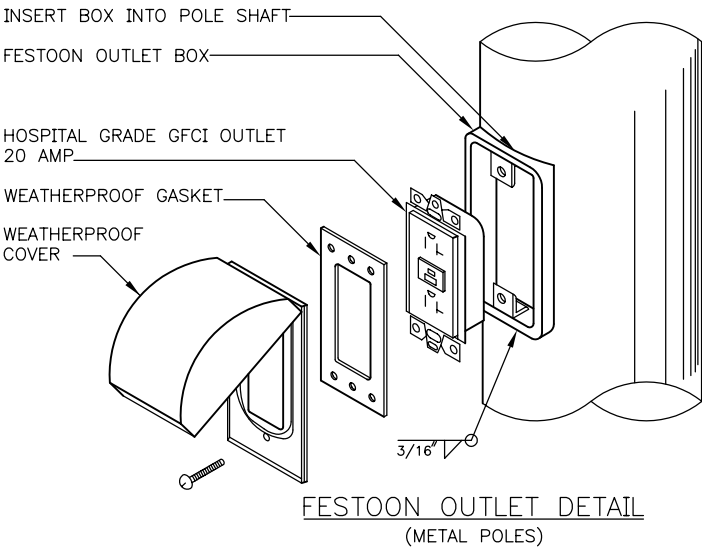


CABLE OUTLET DETAIL



FESTOON OUTLET BOX

- NOTES:
1. ALL OUTLETS SHALL BE PLUGGED WITH THREADED INSERT PLUGS DURING SHIPMENT TO PREVENT DAMAGE TO THREADS
  2. REMOVE BURRS AND SHARP EDGES TO PREVENT DAMAGE TO ELECTRICAL CABLE
  3. SPLIT COUPLING SHALL EXTEND INTO THE POLE 1/2" MAX AS SHOWN



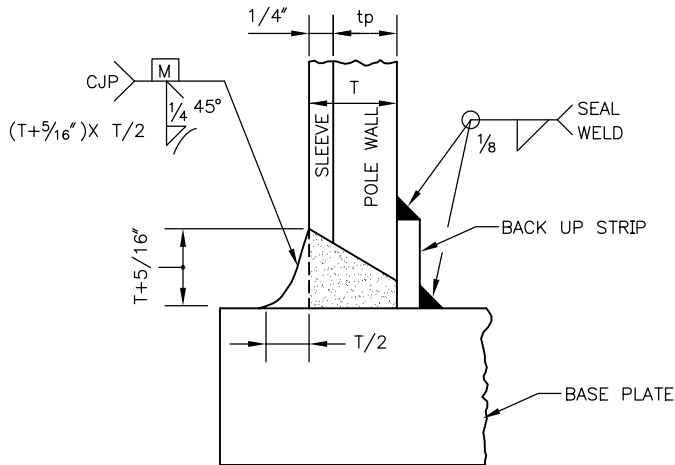
REF STD SPEC SEC 8-30 & 8-32



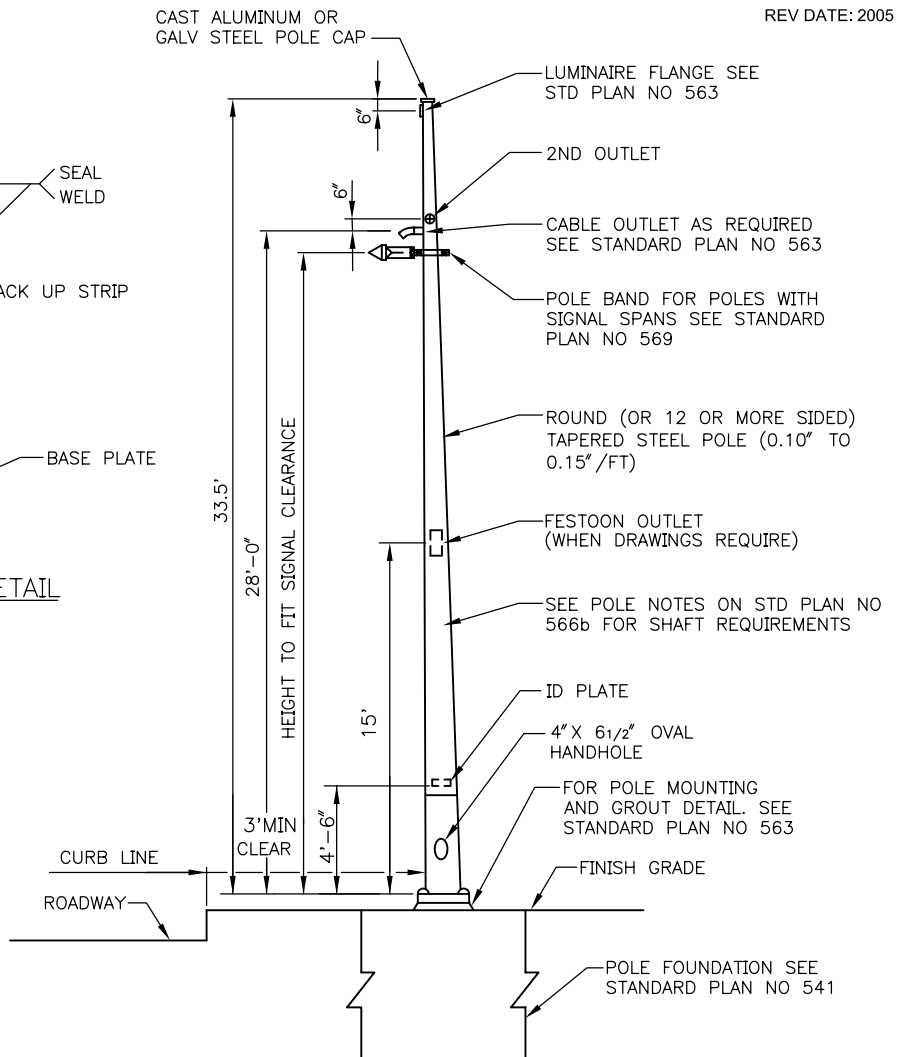
City of Seattle

NOT TO SCALE

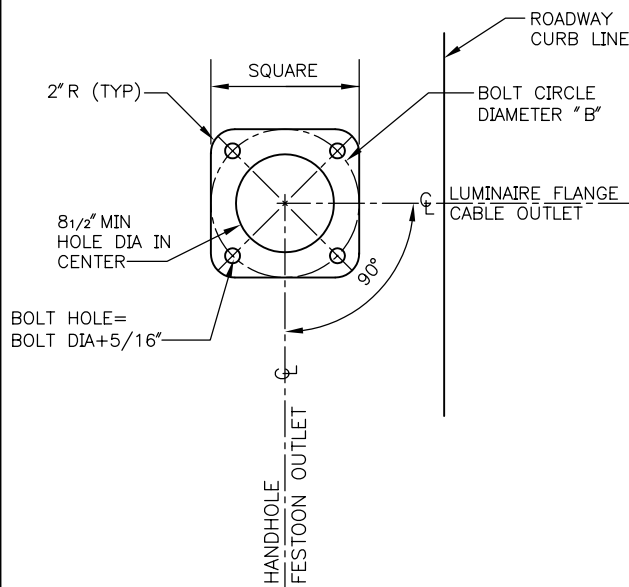
MISCELLANEOUS STEEL  
POLE DETAILS



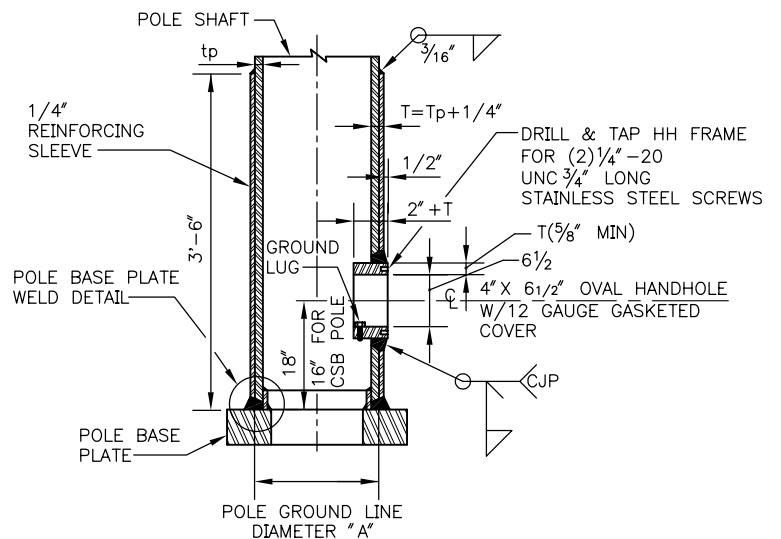
POLE BASE PLATE WELD DETAIL



STRAIN POLE



POLE BASE PLATE



POLE BASE DETAIL

REF STD SPEC SEC 8-32



City of Seattle

NOT TO SCALE

COMBINED USE METRO STRAIN  
POLE DETAILS (TYPE V, X & Z POLES)

POLE TYPE	DEAD LOAD MOMENT KIP-FT (AT GROUND LINE)	POLE SCHEDULE						
		GROUND LINE DIA. "A"		POLE BASE PLATE SIZE		BOLT CIRCLE DIA. "B"	BOLT HOLE	ANCHOR BOLTS
		STD	CSB	STD	CSB			
V	51	12"	12"	1 $\frac{3}{4}$ " X 18" X 18"	1 $\frac{3}{4}$ " X 23" X 23"	18'	2 $\frac{1}{16}$ "	1 $\frac{3}{4}$ " DIA. X 72"
X	93	14"	12" $\frac{1}{2}$ "	2" X 20" X 20"	2" X 23" X 23"	20"	2 $\frac{5}{16}$ "	2" DIA. X 72"
Z	164	15"	—	2 $\frac{1}{2}$ " X 23" X 23"	—	22"	2 $\frac{1}{16}$ "	2 $\frac{1}{2}$ " DIA. X 72"

### POLE NOTES

1. THE YIELD MOMENT SHALL BE 2X THE DEAD LOAD MOMENT. THE ULTIMATE PLASTIC MOMENT SHALL BE 2.5 X THE DEAD LOAD MOMENT.
2. POLE SHAFT AND REINFORCING SLEEVE. ASTM A 572 GRADE 50, 60 OR 65 ( $F_y = 50, 60$  OR  $65$  KSI RESPECTIVELY), OR ASTM A 595 GRADE A OR B ( $F_y = 55$  OR  $60$  KSI RESPECTIVELY).
3. BASE PLATE AND HANDHOLE REINFORCING RIM: ASTM A 36 OR ASTM A 572 GRADE 42. BASE PLATE  $F_y \geq 0.65$  POLE SHAFT  $F_y$ . THE BASE PLATE THICKNESS MAY BE REDUCED BY  $\frac{1}{4}$ " IF ASTM A 572 GRADE 42 STEEL IS USED.
4. REINFORCING SLEEVE SHALL BE FABRICATED FROM THE SAME MATERIAL TYPE AND YIELD STRENGTH AS THE POLE SHAFT.
5. POLE SHAFTS SHALL HAVE NO MORE THAN TWO LONGITUDINAL WELDS IN EACH PLY.
6. MINIMUM SHAFT WALL THICKNESS OF EACH PLY SHALL BE 0.239" (3 GAUGE). POLE SHALL HAVE A MAXIMUM OF TWO PLYS NOT INCLUDING THE  $\frac{1}{4}$ " REINFORCING SLEEVE.
7. MAXIMUM SILICON CONTENT IN STEEL SHALL BE 0.04%. SEE STD SPEC SECTION 9-33.1(3) FOR GENERAL GALVANIZING REQUIREMENTS.
8. POLE DIAMETER FOR 12 OR MORE SIDED POLES SHALL BE MEASURED FROM THE FLAT TO FLAT DIMENSION.
9. POLES SHALL MEET DEFLECTION CRITERIA STATED IN STD SPEC SECTION 9-33.2(2) WITH THE DEAD LOAD APPLIED AT 25' ABOVE GROUNDLINE.
10. POLE STRENGTH SHALL MEET REQUIREMENTS OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (1994 EDITION).

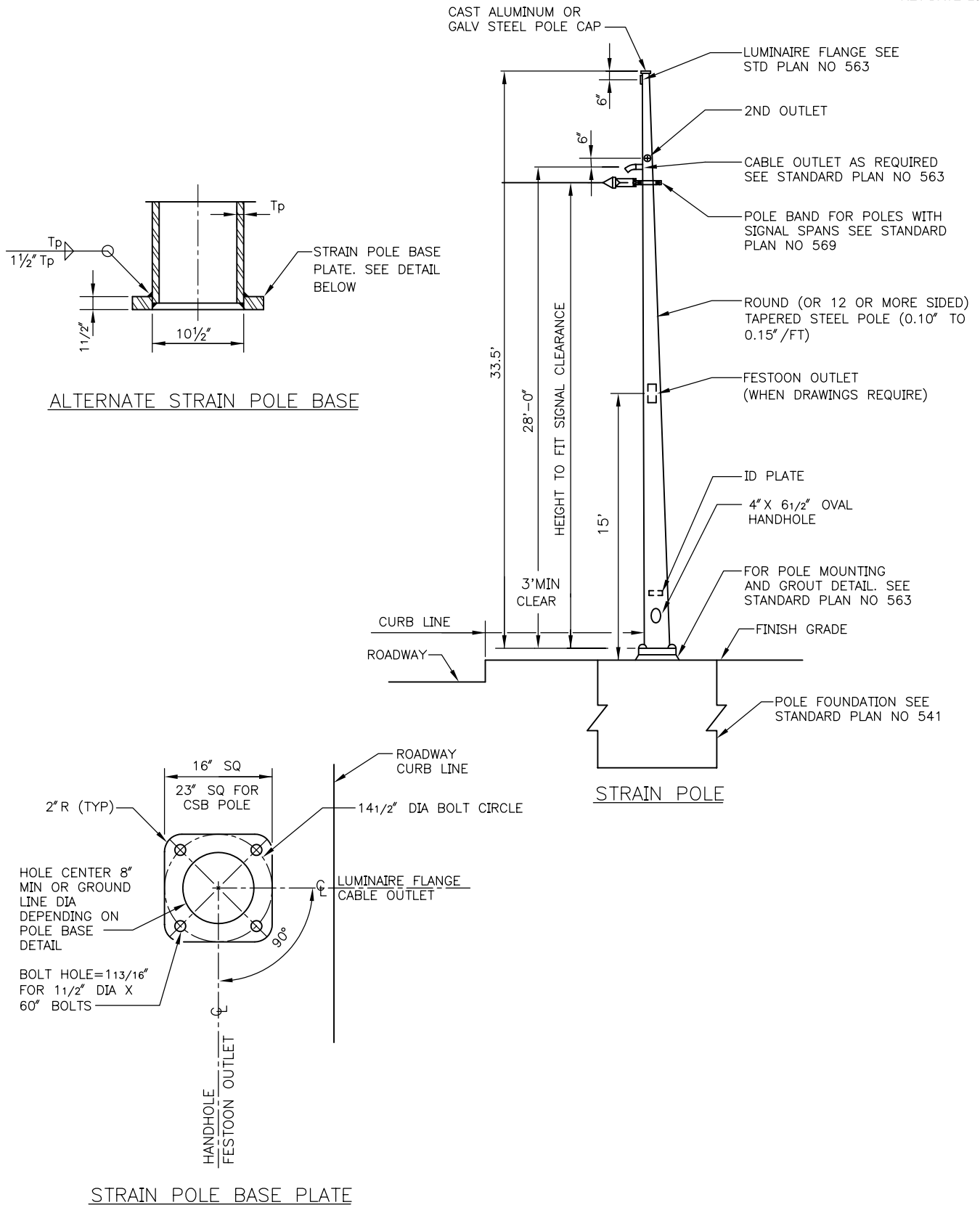
REF STD SPEC SEC 8-32



City of Seattle

NOT TO SCALE

COMBINED USE METRO  
STRAIN POLE  
DETAILS (TYPE V,X,Z POLES)



REF STD SPEC SEC 8-32



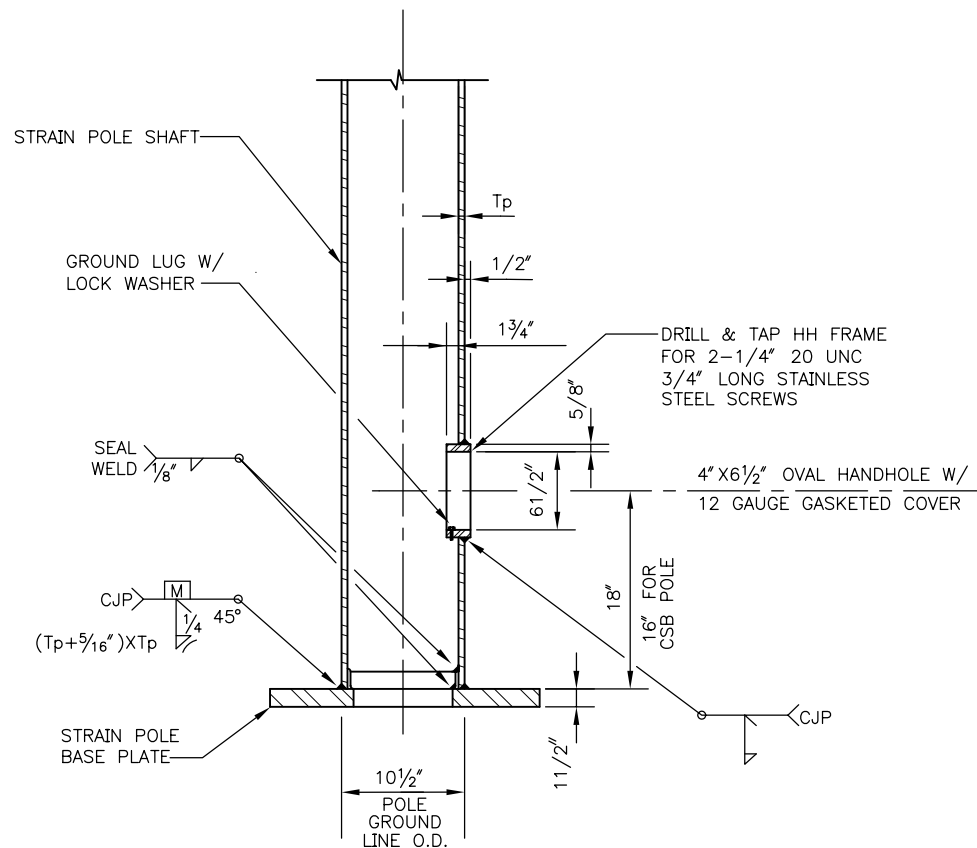
City of Seattle

NOT TO SCALE

TYPE T STRAIN POLE DETAILS  
TRAFFIC SIGNAL ONLY

## POLE NOTES

1. THE DEAD LOAD MOMENT AT THE GROUNDLINE SHALL BE 40 KIP-FT. THE YIELD MOMENT SHALL BE 2X DEAD LOAD MOMENT.
2. POLE STRENGTH SHALL MEET REQUIREMENTS OF AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. (1994 EDITION)
3. POLE SHAFT: ASTM A 572 GRADE 50, 60, OR 65 ( $F_y=50, 60, \text{ OR } 65 \text{ KSI}$  RESPECTIVELY), OR ASTM A 595 GRADE A OR B ( $F_y=55 \text{ OR } 60 \text{ KSI}$  RESPECTIVELY).
4. POLE BASE PLATE AND HANDHOLE REINFORCING RIM: ASTM A 36 OR ASTM A 572 GRADE 42. BASE PLATE  $F_y \geq 0.65$  POLE SHAFT  $F_y$ . THE BASE PLATE THICKNESS MAY BE REDUCED BY  $1/4"$  IF ASTM A 572 GRADE 42 STEEL IS USED.
5. POLE SHAFTS SHALL HAVE NO MORE THAN 2 LONGITUDINAL WELDS IN EACH PLY.
6. MINIMUM SHAFT WALL THICKNESS OF EACH PLY SHALL BE  $0.239"$  (3 GAUGE). THE POLE SHALL HAVE A MAXIMUM OF 2 PLYS.
7. MAXIMUM SILICON CONTENT IN STEEL SHALL BE 0.04%. SEE STD SPEC SEC 9-33.1(3) FOR GENERAL GALVANIZING REQUIREMENTS.
8. POLE DIAMETER FOR 12 OR MORE SIDED POLES SHALL BE MEASURED FROM THE FLAT TO FLAT DIMENSION.
9. POLES SHALL MEET DEFLECTION CRITERIA STATED IN THE STD SPEC SEC 9-33.2(2) WITH THE DEAD LOAD APPLIED AT 27' ABOVE GROUNDLINE.
10. THE POLES SHALL BE COMPACT AND MUST MEET REQUIREMENTS IN AASHTO SECTION 4, TABLE 1.4 1B (1).



STRAIN POLE BASE

REF STD SPEC SEC 8-32

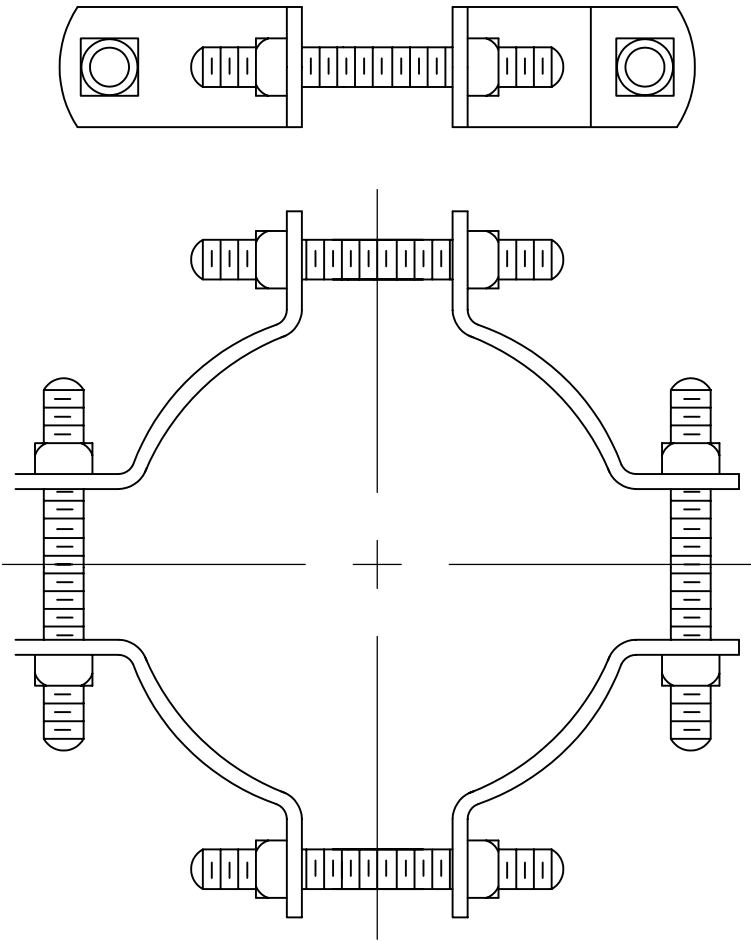


City of Seattle

NOT TO SCALE

TYPE T  
STRAIN POLE DETAILS  
TRAFFIC SIGNAL ONLY





ADJUSTABLE 4-WAY BAND

REF STD SPEC SEC 8-31



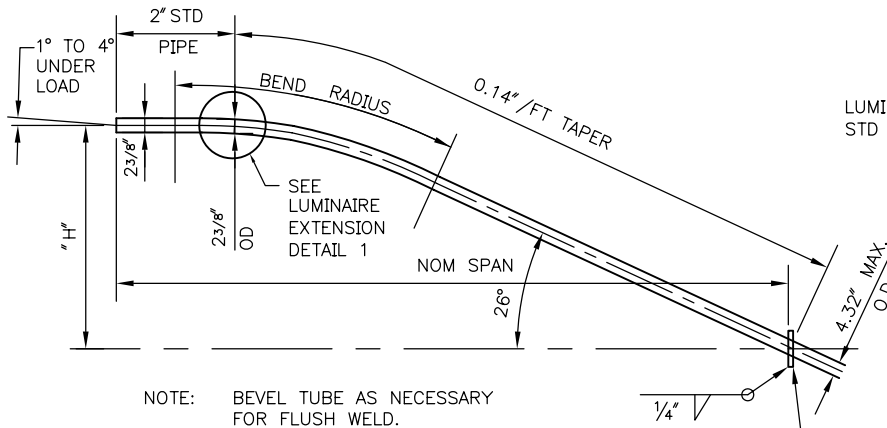
City of Seattle

NOT TO SCALE

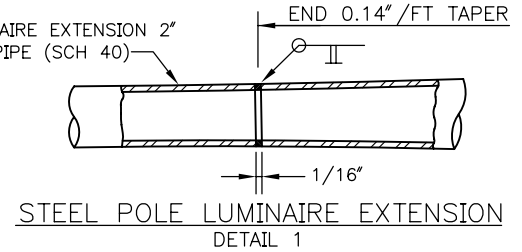
POLE BAND

# STANDARD PLAN NO 572

REV DATE: 2005

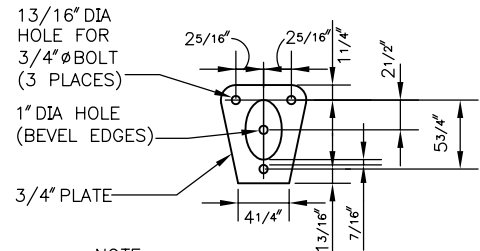


## 15' LUMINAIRE ARMS



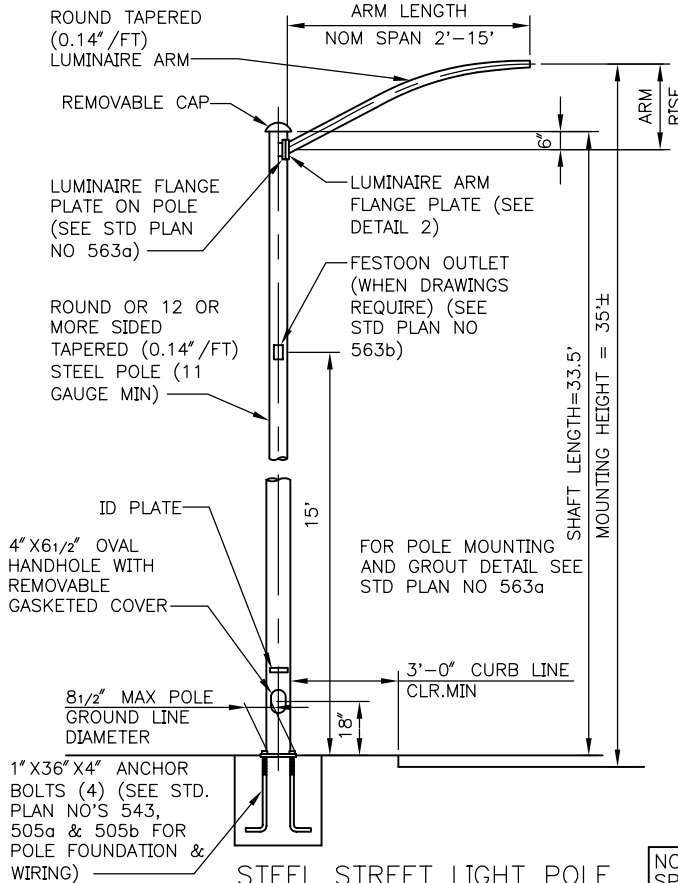
STEEL POLE LUMINAIRE EXTENSION  
DETAIL 1

SEE LUMINAIRE  
ARM FLANGE  
PLATE DETAIL 2

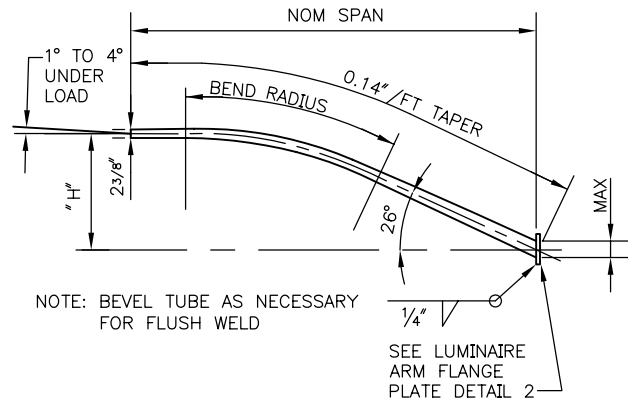


NOTE:  
FLANGE DIMENSIONS AND HOLE LOCATIONS  
MUST MATCH THOSE ON POLE FLANGE  
PLATE. (SEE STD PLAN NO 563a)

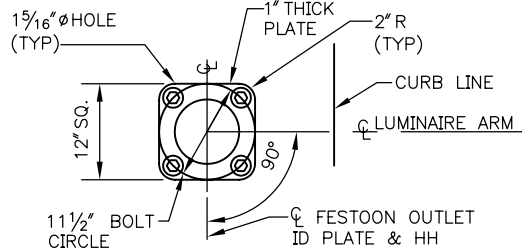
LUMINAIRE ARM FLANGE PLATE  
DETAIL 2



## STEEL STREET LIGHT POLE



## 2' THRU 12' LUMINAIRE ARMS



## POLE BASE PLATE

NOM. SPAN	H*	BEND RADIUS	TUBE REQUIREMENT
2'	5 1/4"	—	2" STD PIPE
4'	12"	6'	11 GAUGE
6'	18"	9'	11 GAUGE
8'	24"	13'	11 GAUGE
10'	30"	15'	11 GAUGE
12'	33"	17'	11 GAUGE
15'	36"	17'	11 GAUGE

## MATERIAL SPECIFICATION

PLATE AND SHAPES  
ASTM A 36  
POLE SHAFTS  
ASTM A 570  
GR 40 MIN.  
ANCHOR BOLTS  
ASTM A 307  
ARM FLANGE PLATE BOLT  
ASTM A 325

\* THESE DIMENSIONS ARE ONLY ILLUSTRATIVE OF THE GENERAL OUTLINE AND MATERIALS USED IN THE CONSTRUCTION OF THESE ARMS AND ARE NOT INTENDED TO EXCLUDE MANUFACTURERS STANDARD PRODUCTS.

REF STD SPEC SEC 8-32



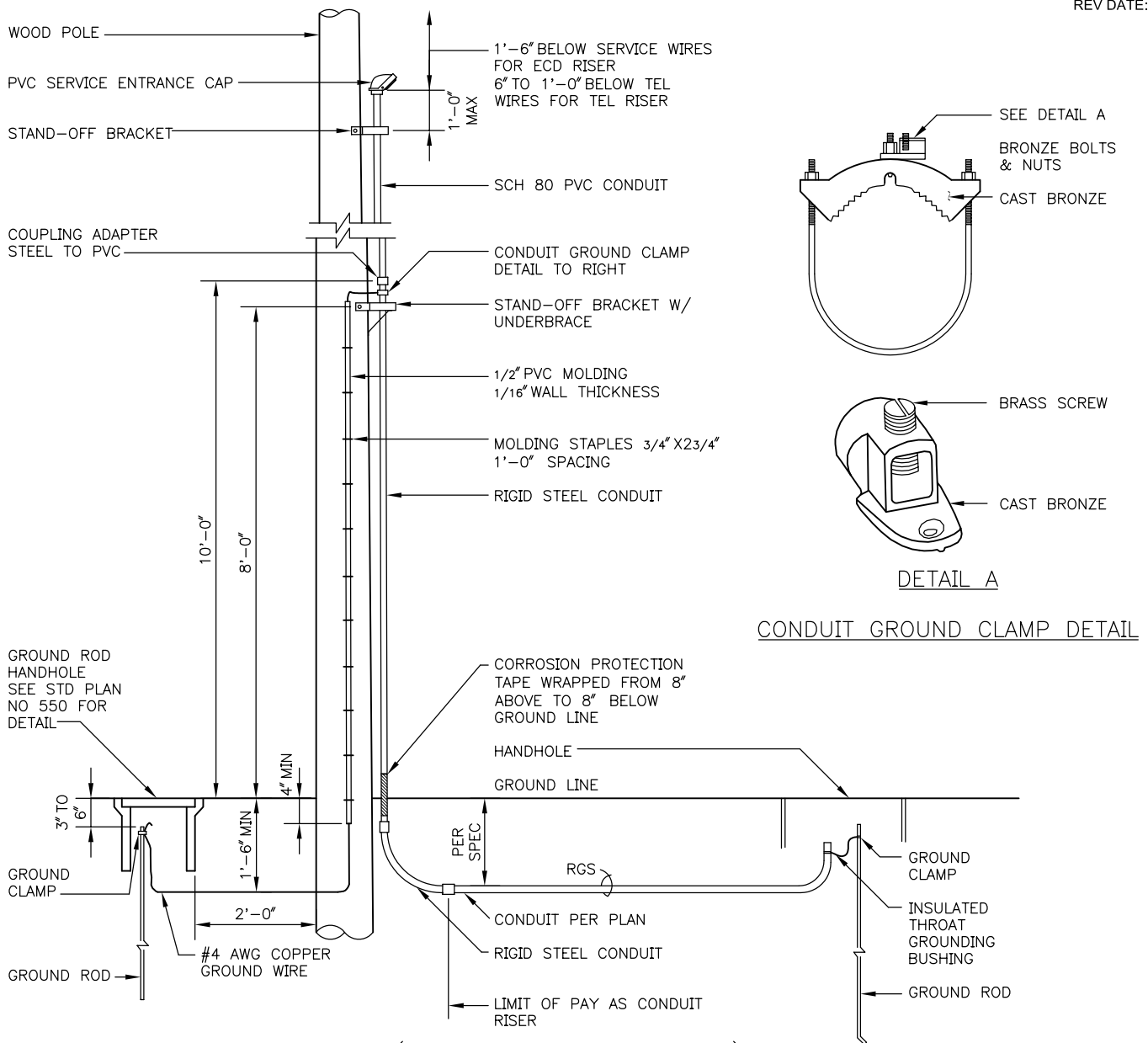
City of Seattle

NOT TO SCALE

STEEL STREET LIGHT POLE  
WITH BRACKET ARM

# STANDARD PLAN NO 580

REV DATE: 2003



## CONDUIT RISER (WITH STAND-OFF BRACKET\*)

\*WHEN THERE WILL BE ONLY ONE CONDUIT (1 1/2" OR SMALLER) ON THE POLE, ONE HOLE MALLEABLE IRON CLAMPS WITH 4" LAG SCREWS SHALL BE USED TO SECURE THE CONDUIT TO THE POLE IN LIEU OF THE STAND-OFF BRACKETS

### NOTES:

1. ON POLES WITH EXISTING CONDUITS, NEW CONDUITS SHALL BE INSTALLED IN ACCORDANCE WITH THIS STANDARD PLAN.
2. RIGID STEEL CONDUIT SHALL BE GROUNDED JUST BELOW COUPLING, APPROXIMATELY 8'-0" TO 10'-0" ABOVE GROUND, AS SHOWN
3. WHEN 2 OR MORE RIGID STEEL CONDUITS ARE INSTALLED ON ONE POLE, ONE CONDUIT SHALL BE GROUNDED AS SHOWN. THE CONDUIT SUPPORTS & STRAPS SHALL SERVE AS A BONDING DEVICE BETWEEN THE STEEL CONDUITS
4. THE GROUND WIRE SHALL BE ONE CONTINUOUS LENGTH. INSERT THE GROUND WIRE FORM THE BOTTOM OF THE GROUND CLAMP & BEND OVER THE CLAMP BEFORE TIGHTENING
5. PLACE GROUND WIRE IN QUADRANT BETWEEN POLE FACE & SECONDARY NEUTRAL
6. ALL STEEL HARDWARE SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123
7. CONDUIT CLAMP SPACING SHALL BE PER THE NEC WITH A MINIMUM OF TWO HOLE CLAMP PER 10'-0" LENGTH OF CONDUIT

REF STD SPEC SEC 8-33, SCL CONSTRUCTION GUIDELINES U 7-10



City of Seattle

NOT TO SCALE

CONDUIT RISER